Harveian Lectures
ON
SOME FORMS OF PARALYSIS DEPENDENT UPON PERIPHERAL NEURITIS.

Delivered at the Harveian Society,

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LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—It is necessary to bear in mind that peripheral neuritis occasionally occurs in the sequel of some febrile affections. Besides diphtheria, of which I shall have to say more presently, other specific febrile disorders are apt to be followed by paralysis, which is sometimes more or less general and at other times strictly localised. Dr. Ross has collected a number of published examples in which there has been localised paralysis of peripheral origin in the sequel chiefly of enteric and relapsing fevers. I was consulted a few months ago by a gentleman who was suffering from paralysis of the serratus magnus of the right side, which had occurred whilst he was convalescing from an attack of enteric fever, acquired during a tour in Italy.

The possibility of paralysis from peripheral neuritis occurring in the sequel of specific febrile affections may give rise to a curious difficulty of diagnosis.

A few years ago a gentleman brought me a letter from his medical attendant abroad, which stated that the patient, after a severe attack of pernicious malarious fever, had become paralysed in both legs, sensibility being normal, but the electric excitability much diminished. The memory likewise was weak. Under treatment he had recovered, except as regards the movement of the foot. It was added that the patient was very fond of liquor, and had required great restriction in this respect. When I saw him he had quite recovered. It is evidently difficult to say what share alcohol may have had in the production of the symptoms. In another instance a female patient, who had suffered several times from tropical dysentery, was sent to me from abroad on account of a quasi-paralytic condition of the upper and lower limbs, described in a letter from her medical attendant as resembling locomotor ataxy. In addition, there had been marked loss of memory, and her conversation had at times been incoherent. Irritability of the stomach, flying pains, and numbness of the limbs had characterised her attack. Though she could move her limbs in bed, "and though sensation was but little at fault, she could neither stand on her legs nor walk a step. She complained bitterly of pain and tingling, and numbness in both arms and hands, and the co-ordinate power of the small muscles of the thumb and fingers was greatly impaired." It was a couple of months or so later that I saw her, and although she had recovered to a great extent the knee-reflex was still absent, and there was greatly reduced electrical excitability in the anterior muscles. I could learn nothing of the patient's habits, but her complexion was sallow and the conjunctivæ yellow, and her attack had commenced with so-called "biliousness." She came from a country where malarious fever is rife, but I could get no evidence of any characteristic intermittent disorder. The symptoms, it is evident, were those of multiple neuritis, but whether this depended on alcohol or malarious fever I am unable to say.

One occasionally meets with alcoholic cases in which there is paralysis to a considerable extent which has escaped the notice of the patient's friends. The patient (usually a female) lies in bed in such a muddled condition of mind that she does nothing for herself, and takes sustenance at the hands of others. When moved from side to side in bed, or when her limbs are touched, she cries out with pain. It is not at all uncommon to find this condition referred to rheumatism or gout. In some cases, as an explanation of the mental condition, one is told that the rheumatism or the gout has "flown to the brain." Although evidently there is a great probability of persons who indulge to excess in alcohol being affected with gout, yet I am disposed to think that much more often this condition is due to peripheral neuritis from alcohol. The persons who suffer in this way do not drink wine or beer—the liquors which tend so much to induce gout,—but brandy or gin. In such cases as I have described there will often be an amount of muscular wasting of the extremities, not to be explained by mere emaciation. If examination be made, it will very likely be found that the knee-jerks are absent, and the faradaic excitability in the muscles greatly reduced or lost.

In a case which I saw in consultation some time ago there was intense pain of a neuralgic character in both lower extremities, with dropping of the feet and absence of knee-jerk. A curious question arose in reference to diagnosis. The patient had been operated upon for a carcinomatous tumour unconnected with the spine a year or more previously. The symptoms pointed to secondary growth in the lower part of the spinal column, causing neuritis in some portions of the cauda equina. But there was also a distinct history of long-continued and great alcoholic excess. Examination showed that whilst faradaic excitability of the muscles of the lower extremities was greatly reduced, that of the muscles of the arms was quite normal. This being the case, I came to the conclusion that the paraplegic symptoms were due to malignant disease. It was unlikely that such severe symptoms of neuritis would have been exclusively confined to the legs had alcohol been the cause. At least one would have expected to find some change in the electrical reactions of the upper extremities. The opinion given was in accordance with this observation, and was, I believe, justified by the sequel.

Amongst the toxic influences apparently liable to give rise to multiple neuritis, besides alcohol, syphilis, and the essential cause of béribéri, whatever that may be, I have mentioned lead and diphtheria. There are circumstances connected with the question of the pathology of lead poisoning which appear to place it on a somewhat different footing from the other varieties described; and this, together with the narrow limits of my space, renders its discussion on the present occasion impracticable. I will therefore conclude this part of my subject by a few remarks upon diphtheritic paralysis. The symptoms of diphtheritic paralysis are so well known that I need not trouble you with any systematic account of them. My intention is to refer chiefly to those clinical features which show that the disease ought probably to find a place alongside of the other forms of paralysis essentially dependent upon peripheral neuritis which we have been considering.

Last year I unfortunately had the opportunity of observing very constantly a case of diphtheria which was followed by paralysis. The patient was a boy nine years of age, who was severely attacked with diphtheria on December 16th. The temperature, which was nearly 105° F. during the first twenty-four hours then declined to a little over 100°, running up to 102° on the sixth day coincidently with the appearance of albuminuria. On the thirteenth day the throat had recovered, the albuminuria continuing till the twentieth day.

On the thirteenth day the patient spontaneously complained of much tenderness on the inside and back of each thigh, and on the fifteenth day pressure over the sciatic, posterior, tibial, and median nerves was decidedly painful. Throughout his limbs handling and gently squeezing the muscles appeared to cause considerable discomfort. The knee-jerks at this time were quite normal.

About the twenty-third day he began to complain of difficulty in reading, and in a few days he could not read at all. Mr. Macnamara, who kindly examined him, found almost absolute inability to accommodate. On the ninety-ninth day Mr. Carter found that the left eye had recovered its accommodation, that of the right still remaining paralysed. This also recovered later.

On the thirty-eighth day he complained of a peculiar feeling at the "top of the throat," and some water which he drank came for the first time through his nostrils. He spoke with a nasal twang. He fidgetted much and felt as if his legs would give way, and said he could not stand still. At this time he never passed a day without complaining of pain referred to the epigastric region. The pupils were dilated. They responded to light. There was no optic neuritis.

On the fortieth day, in going downstairs, he staggered a

good deal, and had not complete control over his feet. As he himself expressed it, "he wanted to take one step, but took two." The knee-jerks, which had been examined daily from the time of subsidence of the throat symptoms, were still quite normal. It was not until the ataxy of gait had lasted nearly three weeks that the knee-jerk became rather suddenly very feeble. Next day (the sixty-first of his illness) the phenomenon was absent on the right side and very small on the left, and on the following day, the sixty-second of his illness, there was not a trace of tendon reflex in either leg. Anticipating a little for the sake of clearness, I may here say that the knee-jerks returned about the first week in June—i.e., about the one hundred and seventieth day of his illness. They were absent, therefore, about one hundred and eight days. I had examined him daily until April 21st, when the lad went into the country. He had learned perfectly to test his knees for himself, and reported with much satisfaction the date of return of the reflexes.

It was especially from about the end of January till the end of March that the boy showed great awkwardness of gait and clumsiness in the use of his hands. He could only walk at a slow pace, and was very soon fatigued. He would now and then, with boyish instinct, try to run, but in this he quite failed. He could not perform the movement. At times, in walking, he would suddenly come to the ground, having tripped or in some way missed his foothold.

In the beginning of April, whilst the knee-jerks were still completely absent, he had so much improved in the power of his limbs that he could walk, run, and join his brothers in play, and this progressive improvement continued uninterruptedly until his recovery. The nasal character of his voice and the regurgitation of fluids, which had commenced on the thirty-eighth day of his illness, were at no time very strongly marked symptoms. It was only occasionally that he had difficulty in swallowing fluids, and these symptoms ceased to trouble him at all after lasting about a month. At the time when the voice first became nasal in character, it was noted that in speaking the lips were moved much more than was natural. There was, indeed, an ataxic over-action of the muscles about the mouth. A note to this effect was made on January 24th. It is interesting that within a week a complete change in this respect had taken place. On January 31st the muscles of the lips are described as "very indolent." On February 4th, again, along with mention of regurgitation of his coffee and the nasal tone of his voice, it is remarked, "very little movement about the muscles of the mouth."

On the sensory side a prominent complaint was of pain in the stomach, of which he had early spoken, and which lasted longer than any other symptom. It occurred especially but not exclusively after eating, and was not accompanied by vomiting. I frequently pressed upon the nerve trunks of his limbs in different situations, and satisfied myself that there was very distinct tenderness in the trigeminal, musculo-spiral, median, ulnar, sciatic, and popliteal nerves, as well as in the epigastric region.

No change in the electrical reaction of his muscles was at any time apparent. Although in this instance, and several others that I have observed, there has been no alteration in the electrical reaction, this is by no means constantly the case, and I have notes of several in which the excitability was distinctly lessened in some muscle-groups of the extremities.

The ataxy of gait to which allusion has been made, and which is so frequently seen in the sequel of diphtheria is precisely of the kind which occurs in multiple neuritis arising from other influences, such as alcoholic, syphilitic, and also in certain unclassed forms. It never, so far as I have seen, acquires the pronounced character of the ataxy which is so often associated with sclerosis of the posterior columns of the cord. We do not see in these cases the wild flourishing about of the legs, with stamping action, so characteristic of the latter disease. The ataxy in multiple neuritis is probably due, I think, not to any affection of the posterior columns of the cord, but to the want of harmony in the strength of various muscular contractions owing to the varying amount of the lesion of peripheral nerves.

I long ago drew attention to the chance of diphtheritic paralysis being mistaken for tabes dorsalis, of which several instances have come before me. When the electrical reaction of the muscles is unimpaired this is peculiarly liable to occur. The condition of the pupils should be a help towards differentiation. In tabes, as was first pointed out by Argyll Robertson, the pupils are very apt to lose their capacity for contracting to light whilst retaining the power of contraction during an effort at accommodation. In diphtheritic paralysis, so far as I have seen, the pupils retain the power of contracting to light. How they behave in an effort at accommodation I cannot say, and several ophthalmological friends to whom I have applied have not been able to tell me, but have kindly promised to observe the point. In view of the peculiar affection of accommodation in this disease, it would be interesting to know whether there is normal contraction of the pupil during convergence for accommodation. The tenderness of the trunks of nerves which was here conspicuous was long ago observed by Dr. Greenhow. In a paper read before the Clinical Society of London upon "Diphtheritic Paralysis," in 1871, he suggested the existence of neuritis, having been struck by the tenderness of the sciatic nerve in a case of this kind. He referred to the fact that Mr. Hulke in one example had discovered optic neuritis. In the cases of multiple neuritis which I have seen, including those of the alcoholic form, the optic nerve has been unaffected; but in one patient who, I believe, suffered from the non-alcoholic form of the disease (though the diagnosis is not absolutely sure) there was optic neuritis. It occurred also in a case related by Strümpell.

Opportunities of examination after death in cases of diphtheritic paralysis are comparatively rare. The results in such cases as have been recorded are at first sight conflicting. Changes of an atrophic character in the ganglion cells of the anterior horns of the spinal cord have been described by Vulpian, Déjerine, Abercrombie, Kidd, and others. On the other hand, many investigations support the opinion that the cause of diphtheritic paralysis lies in a lesion of the peripheral nerves. Charcot, Vulpian, Lorain, Lépine, Lionville, Leyden, and Meier have contributed testimony in this direction. Changes also in the vascular system and its contents have been noted by Buhl, Oertel, Mendel, and others, in the form of hyperæmia, capillary hæmorrhage, and thrombosis.

It must be remembered that the cases in which disease of the spinal cord has been discovered have been of necessity fatal cases; and the question is, What is the pathology of the infinitely more numerous cases which not only recover, but recover without leaving a trace of any permanent change? I do not think that, with the clinical evidence before us, we are justified in saying that diphtheritic paralysis in its ordinary form, passing to complete recovery, is dependent upon an affection of the spinal cord. It is, in my opinion, more reasonable to conclude that in this disease we have usually to do with peripheral neuritis of very varying severity, which in the mildest cases is probably represented by a mere transitory hyperæmia with effusion in the interstitial element.

Were such changes in the spinal cord as I have referred to ordinarily present, the complete recovery which is well known to be the rule would be impossible. The alterations in the number and structure of the ganglion cells would certainly be attended, as they are in cases of infantile paralysis, by more or less permanent paralysis and atrophy in corresponding nerve districts. Nor should we find, as we do in many instances, the electrical reaction of the muscles remaining normal. Moreover, the sensory disturbance which is so often present in diphtheritic paralysis, cutaneous anæsthesia, tenderness of muscle and nerve trunks, and darting pains, cannot possibly depend upon lesion of the ganglion cells of the anterior horns of the cord, whilst they point as strongly as possible to affection of nerve fibres.

Practically one very seldom indeed meets with examples of diphtheritic paralysis exhibiting such a near approach to the symptoms of typical interstitial neuritis as is so frequently seen in alcoholic paralysis. No doubt now and then a case is seen in which severe shooting pains are very prominent, another in which there is extreme and widespread loss of muscular power, or it may be that loss of cutaneous sensibility is strongly marked. So also here and there we may find one in which there remains a narrowly localised and permanent muscular atrophy. I lately saw with Dr. Playfair and Dr. Semon a case in which, a year after the onset of diphtheritic paralysis, there was unilateral atrophy of the tongue and partial paralysis of the lips. But if we take a very common type of alcoholic paralysis and the most frequent form of diphtheritic paralysis, the contrast appears to be strongly marked. In the former we have notable paralysis of the extensor muscles of the extremities, with

cutaneous tenderness or anæsthesia, pains of an agonising description, rapid muscular atrophy, and complete loss of faradaic excitability. In the most common examples of diphtheritic paralysis there is weakness and ataxy rather than marked paralysis, a varying amount of cutaneous anæsthesia, pains either absent or of trifling character, no muscular atrophy, and electric reaction to induced currents either normal or but slightly reduced.

But alongside of these strikingly contrasted symptoms there are others which point more or less strongly to a kindred origin. In each case, for example, loss of patellar tendon-reflex is a very constant symptom, and tenderness of the muscles to palpation is likewise very generally marked in both. If, again, we pass from the strikingly contrasted forms to which I have just referred, we shall find cases more and more approaching a common character—cases of alcoholic paralysis with ataxic symptoms predominant, with pains but slightly marked or absent, and only a moderate amount of anæsthesia; or, it may be, cases of diphtheritic paralysis without affection of accommodation or of the palate, and with ataxy rather than paralysis. Moreover, in some rare cases of diphtheritic paralysis there may be exceedingly severe lancinating pains, great tenderness of the muscular masses, "dropped" hands and feet, followed by more or less general powerlessness of the upper and lower extremities, absent tendon-reflex, without affection of accommodation or of the velum palati—a train of symptoms, indeed, which is literally only distinguishable from those of alcoholic paralysis by the absence of any mental disorder. It is indeed hardly possible to doubt, from the mode in which the clinical characters of the two conditions thus approach each other and sometimes meet, that they depend essentially upon similar lesions varying in severity in different instances.

From what has gone before, it is evident that we may have to do, as regards peripheral neuritis, with either of several conditions. (1) There may be paralysis in the district innervated by a single nerve; (2) or in that supplied by a plexus of mixed nerves; (3) or the paralysis may progressively become more or less universal.

In the first case, if it be one of severity and the nerve concerned be a mixed one, there cannot be much difficulty in the diagnosis. There will be loss of power in the muscles supplied by a particular nerve, and in those only, with more or less atrophy of their substance and loss of electrical excitability, together with pain in the nerve trunk, and abnormal sensation of some kind—numbness, formication, or anæsthesia of the skin in the district supplied by the nerve. If pressure be made upon the nerve trunk, it may be found to be tender, and in certain cases will be felt to be enlarged. A moderate pressure is likely to give rise to a tingling sensation referred to the periphery of the nerve-distribution. If the nerve in question, instead of being mixed, is purely motor in function, the evidence afforded by alterations of sensibility is wanting, and it is then often very difficult, and may be impossible, to decide whether the symptoms observed are due to changes in the trunk of the nerve, or in the nucleus of its central origin. A consideration of accompanying circumstances, together with the history of the attack, can alone afford help in deciding this point.

In the second case the association of sensory disturbance with motor paralysis would serve to distinguish lesion of a plexus from disease of the anterior grey matter of the cord.

As regards the third category, it is necessary to enter into more detail. The diagnosis of multiple neuritis is of great importance, and may present no small difficulty. It is evident that there are certain points in the symptomatology of this disease which enable us to narrow the question of diagnosis, so far at least as strongly-marked cases are concerned. The alteration in the electrical reactions of the muscles alone permits us to say at once that the disease is not dependent upon an intra-cranial lesion. We know that we have to do with paralysis of either spinal or peripheral origin. In its mode of onset and progressive character there is a stong *primâ facie* resemblance between multiple neuritis and the acute ascending paralysis of Landry. This disease (of which I know but little, save what I have read), beginning usually like multiple neuritis with numbness in the finger-ends and feet, is characterised by motor paralysis, which commonly first affects the lower extremities, and spreads upwards over the trunk and upper extremities. The circumstance that the distal portions of the extremities are first involved gives rise to a great resemblance to the aspect of multiple neuritis. But in acute ascending paralysis the general sensibility is said to be scarcely, if at all, affected; there is no notable atrophy of the muscles, and no change in their electrical reaction.

Weakness of the arms, with pain in one or other of them, accompanied by loss of power in the lower extremities, and anæsthesia extending to the upper ribs, may be caused by a tumour pressing upon the cord in the lower cervical region of the spinal cord. But in such a case we should expect to find more or less paralysis of the bladder, with a strong tendency to the occurrence of bed-sores. The reflexes, deep and superficial, would be increased below the waist—the electrical excitability of the muscles of the lower extremities would be unchanged. There would be notable tendency to spasmodic contractions of the lower limbs.

The symptoms arising from Pott's disease of the spinal column when the affected vertebræ are in the cervical region are of course very comparable with those resulting from tumour in the same region. The symptoms of compression-lesion just enumerated will be found, and will alone suffice to distinguish from multiple neuritis, even without the evidence afforded by the spinal deformity.

Where there is paraplegia from acute softening of the cord, the symptoms are far more rapid than is the case in multiple neuritis. The bladder is apt to be paralysed quite early in the case—sometimes, indeed, a failure to pass urine is the first symptom. Disorder of the bladder and rectum are, indeed, ordinarily as conspicuous in this disease as they are altogether absent or trifling in multiple neuritis. There is also constant tendency to destructive bed-sores in the sacral region and other parts, in striking contrast with the immunity which almost always obtains in multiple neuritis.

The diagnosis of multiple neuritis from spinal lepto-meningitis is more complicated; for here likewise there are shooting pains in the course of nerve trunks, with more or less hyperæsthesia or anæsthesia in the districts of certain nerves, together with impairment of muscular power. But in meningitis we should find superadded to these symptoms deep-seated pain in the back, materially increased by movement, especially by turning from side to side in bed. There would probably also be rigidity of the spine, as well as muscular spasms in the limbs. None of these symptoms form part of the symptomatology of multiple neuritis. Perhaps the greatest difficulty might be found in the differential diagnosis from cervical pachymeningitis with extension of meningitis of the soft membranes through the length of the cord. In this condition there might easily be a more or less complete loss of power of grasp, coupled with darting or burning pains in the nerve trunks of the arms, exactly resembling those which are apt to occur in the course of multiple neuritis. Moreover, there would be atrophy of certain of the muscles of the hands and arms, with loss of electrical excitability. It is not, indeed, surprising that there should be this striking resemblance, because when the cervical dura mater is thickened by inflammation (which necessarily involves also the soft membranes below it), the lesion attacks likewise both anterior and posterior roots of the nerves and sets up neuritis in them. But besides the symptoms in the upper extremities, the pressure on the cord in the cervical region would occasion loss of power in the lower extremities, combined with more or less sensory and trophic disturbance in them according to the degree and extent of the inflammation of the soft membranes. But in this condition, again, we should expect to find stiffness of the neck, with a good deal of pain in the back, increased by movement, and twitching in the muscles of the extremities. Moreover, there would be a great preponderance of symptoms referred to the *upper* extremities, whereas in multiple neuritis it is usually the lower extremities which suffer most.

In meningitis it is the roots or central ends of the nerves which are the subject of inflammatory change. The symptoms resulting will therefore be liable to appear equally developed in the various districts of distribution of the nerves, and will not be confined, as is so often characteristic of multiple neuritis, to the distal portions of these districts. The localisation of pronounced paralysis and sensory disorder in the periphery of the limbs points most strongly to multiple neuritis, but in certain cases a more or less extensive spread of the lesion upwards towards the centre may easily mask the significance of this sign.

Hæmorrhage into the substance of the cord or outside the membranes will, if extensive enough, occasion motor paralysis of limbs and trunk, with complete loss of cutaneous

sensibility, muscular atrophy, as well as loss of electric excitability. The suddenness of the onset will alone suffice to distinguish such a case from one of multiple neuritis, to say nothing of the fact that paralysis of the bladder and bowel, together with strong tendency towards the occurrence of bed-sores, would almost necessarily form part of the symptoms.

I have already referred to the resemblance to tabes dorsalis found at a certain stage of multiple neuritis. The patient is able to walk, but it is with an ataxic gait; the knee phenomenon is absent, and he complains very likely of sharp shooting pains. The alteration of electrical reaction in the muscles of the affected limbs will serve, when present, to distinguish the condition. But at a certain stage of recovery the muscles may be found to respond normally to the induced current. In these circumstances the difficulty of diagnosis on the part of anyone who had not watched the case in its antecedent stages would be very great. A little time, however, would clear up the obscurity, for the return of the knee phenomenon would show that the case was not one of tabes.

The subacute atrophic spinal paralysis described by Ducnenne is characterised by symptoms on the motor side closely resembling those of multiple neuritis, but it differs from the latter in presenting no affections of sensibility.

The differential diagnosis between multiple neuritis and acute anterior poliomyelitis may be very easy indeed, or so difficult as to give rise to considerable doubt. It appears to me that there are three principal points to be borne in mind: (1) In acute anterior poliomyelitis, what may be called the first stage—the stage of increasing intensity of symptoms—is usually much shorter than in progressive multiple neuritis, the paralytic symptoms far more complete, and the motor disturbance much more marked than the sensory symptoms, where these chance to be present. In multiple neuritis, on the contrary, such forms of the latter as "numbness," "deadness," and "pins and needles" are usually more prominent at first than the loss of power. (2) In acute anterior poliomyelitis groups of muscles functionally related are apt to be struck simultaneously with complete loss of power, whilst in progressive multiple neuritis the groups of muscles invaded by the disease are apt to be those in the district of distribution of various nerve trunks rather than of plexuses. (3) In progressive multiple neuritis, severe enough to cause marked paralysis, you may expect to find distinct tenderness if you press upon the trunks of nerves where these are superficial. Sharp shooting pains in the course of peripheral nerves lasting several days probably furnish in an otherwise doubtful case conclusive evidence in favour of progressive multiple neuritis. This is the best diagnostic scheme which I can suggest, but I acknowledge that in certain cases it will not be sufficient for the required distinction. For it may chance, in a case of multiple neuritis, that the motor disturbance is exceptionally rapid, severe, and unaccompanied by sensory disturbance. It may be so extensive as to merge in one common powerlessness all the muscles of a limb, whether functionally or anatomically related. As regards the tenderness on pressing the nerve trunks, I am not able to say whether this is constant in cases marked by motor symptoms chiefly or entirely, as well as in those characterised by striking pain and hyperalgesia. It is in the latter only that I have noted the symptom.

No doubt, if we take the example of a purely motor nerve—the portio dura,—in cases of neuritis of its trunk causing facial palsy, there is not any tenderness on pressure. But in a spinal mixed nerve, a nerve containing sensory as well as motor fibres, even when the symptoms point only to lesion of the motor nerve fibres, it may well happen that there is over-excitability of the sensory fibres. But, as I have said, whether this is the case or not I do not know.

It may be asked whether, considering that in each case the lesion of the peripheral nerves is immediately the cause of the paralytic symptoms, it is not over-refining to try to determine to which category a particular example belongs. The importance lies in the fact that the prognosis is, on the whole, far more favourable in a case of multiple neuritis than in one of anterior poliomyelitis. The explanation of this cannot be better put than it has been done by Dr. Poore, who, in his selection from the works of Duchenne, reminds us of the "probability that the repair of motor cells once lost is impossible, whilst the repair of conducting fibres emanating from healthy motor cells need never be despaired of."

It is highly probable that a certain number of cases of so-called "infantile paralysis" are examples of multiple neuritis. I am much disposed to think that in the cases of "infantile paralysis" which make unexpectedly good recoveries after very long delay, the lesion may have been in the nerve trunks, and not in the anterior ganglia of the cord.

A very few words are necessary in reference to prognosis. In the early stage of multiple neuritis of non-alcoholic form, when the disease is spreading almost hourly so as to invade fresh nerve districts, the prognosis is necessarily an anxious one. The cardiac and respiratory apparatus may easily become involved, and death occur almost suddenly. But it is quite remarkable, as was seen in the two cases of my own which I have related, to what an extent the respiratory apparatus may become affected and recovery yet take place. When the disease seems to be no longer making fresh inroads, but, on the contrary, slight ameliorations begin to appear, a highly favourable result may generally be looked for. It is not so easy to speak as regards the alcoholic cases, as in them the brain also is always more or less involved in the disorder. But, as I have already remarked, my personal experience has decidedly disposed me to give a very favourable prognosis even in cases which are marked by extensive paralysis and muscular atrophy.

In diphtheritic paralysis the prognosis is distinctly favourable. It is probably through invasion of the pneumogastric that a fatal result now and then occurs, and for that reason serious modifications of the circulation, especially if accompanied by vomiting, should cause anxiety and care. So long as the knee-reflex is absent the patient should be looked upon as still an invalid, and not allowed to be incautious. This will obtain equally in other forms of multiple neuritis.

There are various degrees of severity shown by this disease, from a slight loss of power scarcely noticed by the patient, to a rapidly extending and complete paralysis, involving not only the nerves of the extremities and trunk, but also those belonging to the organs whose functions are essential to life.

The treatment of localised neuritis occurring in a person of gouty habit, and presumably dependent upon that exciting cause, should be in accordance with the customary methods adopted for acute gout. After the acute symptoms have subsided, good is sometimes experienced from the application of small flying blisters in the neighbourhood of the affected nerves, and comfort may be derived from the employment of the constant current.

In severe cases of a progressive multiple neuritis it is advisable to place the patient at once upon a water-bed, although it will have been noted that in this disease there is not seen the same tendency to dangerous bed-sores which is observed in certain lesions of the spinal cord. But I think that the water-bed supports the weak patient better than an ordinary couch; and this becomes of importance when, as sometimes happens, life is carried on with difficulty, owing to the nerves presiding over respiration, deglutition, and the heart's action becoming involved in the progress of the disease. In such cases as these the administration of food in easily assimilable form and quantity, and at very short intervals, is urgently required, and stimulants are often needed. During the first stage of the disease it will be advisable to administer iodide of sodium in all cases except examples of diphtheritic paralysis and those in which a syphilitic taint can be safely put aside. In the progress of the disease it may be found necessary to give the salt in increasing doses. In one of my cases the dose of iodide of potassium was increased from ten to sixty grains three times a day with evident advantage, and to this mercurial treatment was added. In a case of multiple neuritis with a distinct syphilitic history, I should now begin with mercurial inunctions, and also employ iodide of sodium at the same time. In cases of non-specific character, and especially where there is reason to think that exposure to cold and other causes of rheumatism have been present, it will be well to employ the salicylate of sodium, which in the hands of Leyden has apparently yielded favourable results. The dose and mode of use is like that for acute rheumatism. For the relief of pain a combination of morphia with Indian hemp and belladonna may be employed internally with advantage, and lint steeped in chloroform may be pressed for a minute or two on the seats of greatest suffering if the state of the skin admits of this. But very often, and especially in alcoholic cases, there is an amount of exquisite hyperæsthesia which renders it difficult to apply any local

remedy. In such instances the best thing is to envelop the tender limb in cotton-wool and cover this lightly with oil-silk. When multiple neuritis has arisen in connexion with the abuse of spirits, I am accustomed, as a general rule, to withhold alcohol in any form, and to depend entirely upon frequent administration of food for the support of the patient. Nutrient enemata will sometimes be required. In such cases as these it is remarkable how rapidly the pains and hyperæsthesia which have been the cause of intense suffering to the patient cease. It is very difficult to say how long a patient suffering from multiple neuritis should be kept strictly and absolutely at rest. This should certainly be done during the continuance of pain or hyperæsthesia, and in case there is any important elevation of temperature. But when it is evident that the process of regression or repair has taken place to a considerable extent, the patient should be allowed to get up and cautiously try to move the muscles of the affected limbs. By slow and careful steps the effort at voluntary movement may be increased. At the same time the galvanic current slowly interrupted should be applied to the muscles. The motive for this application may be thus explained. When you apply the two rheophores of an induced current machine to the skin covering a healthy muscle, and thereby obtain a contraction of muscular structure, that contraction is probably brought about by the momentary currents stimulating the intra-muscular nerve, and not by the action of the currents directly on the muscular fibre; so that when the conductivity of the nerve fibres is lost by disease one result is that you fail to produce contraction of the muscle by applying the induced current to it. The essential element of the nerve fibre has degenerated, but the muscular fibre has not (at least this obtains for a long time) suffered any important change. It is still, therefore, capable of being thrown into contraction by the making and breaking of a galvanic current which acts directly upon muscular tissue itself—not indirectly, like the induced current, through the medium of a nerve twig. Now it is probable that muscular structure may retain its power of contraction to this direct electrical stimulus for a very long time after it has lost its physiological connexion with the anterior grey matter of the spinal cord. I have seen the property retained in these circumstances for several years—in one case thirteen years—but I have also seen it lost altogether within a year. As the process of regeneration of nerve fibre may require in severe cases a very long time for its completion, it is evidently important that the muscular structure should not by the time the nerve has recovered have itself undergone a degeneration from which there would be no return, and which would render it unable to respond by contraction to impulses arriving through the regenerated nerve. Physiologists have found that if muscle which has lost its nervous elements be artificially stimulated now and then to contraction, its irritability will continue. When left to itself, however, the irritability is apt to disappear and the muscular substance to undergo degeneration. There is therefore a good reason for the use of slow interruptions of the constant current in these cases.

There are some grounds for believing also that faradisation with the wire-brush upon the dry skin may be employed with advantage. As you are aware, this means was introduced by Duchenne for the treatment of anæsthesia. There can be no doubt of its service in anæsthesia, and by inference we may perhaps reasonably conclude that it may help by its action on the sensory fibres of the nerve towards the restoration of function in the lesion of nerves under consideration. Massage is also useful in this stage, and in this I would include passive movements by the operator, as well as active movements against resistance on the part of the patient. In the contracted state of limbs which occasionally results, the contracture being due to unbalanced muscular antagonism, division of a tendon may sometimes be adopted with advantage. Considerable patience should be employed before proceeding to this measure, as I have known contractures, which were to all appearance hopelessly permanent, yield, without operation, to assiduous massage combined with active and passive movements. Along with the contracture of the muscles, it will sometimes be found that adhesions have taken place in some of the joints owing to disuse. These should be forcibly broken down. The aim generally should be to disengage muscles from obstructions to their movement, and to encourage their growth and functional activity by various kinds of physiological stimuli.

MECHANISM OF THE ACTION OF THE HEART, ETC.

A DISCOURSE ON HARVEY'S EXPOSITION OF THE MECHANISM OF THE ACTION OF THE HEART AND GREAT ARTERIES, MALPIGHI'S DISCOVERY OF THE CAPILLARY SYSTEM, SUBSEQUENT SUPPLEMENTARY ELUCIDATIONS OF THE "ARTIFICIUM ADMIRABILE" OF THE CIRCULATION IN THE EXTREME VESSELS, AND THE MECHANISM OF THE PROPULSION OF LYMPH FROM LYMPHATIC HEARTS INTO VEINS.

Dedicated to the President and Members of the General Medical Council.

BY T. WHARTON JONES, F.R.C.S., F.R.S.

CONSIDERING the importance of the facts in nature relating to the mechanism of the extreme vessels, and the course of the circulating blood therein, they ought to be precisely defined by professors of physiology, and taught to their pupils as so many Articles of Belief. Instead of this, however, we have seen, and shall see still further, that the minds of the young men are perplexed by the blunderings they read in their text-books and hear uttered in the lecture-room. If authors, professors, and occasional orators would only open their eyes to look and see, exerting their minds at the same time logically to observe, and so be able to teach their pupils to do the same, everything would prove comprehensible enough to both parties. Herein the President and members of the General Medical Council might afford valuable assistance by their co-operation, for though, to adopt the words of the President himself, they have not any *mandatory* power to compel professors to look in order to see and observe, they could issue *hortatory* injunctions to that effect.

Our great exemplar "wisely thought 'twas fit on the original itself to look," in order to see, and, seeing, to observe, what Nature does and suffers. Thus it was that, by intently watching the succession of the movements of the heart, exposed in a living animal, Harvey at last hit the mark by perceiving how that the auricles, on becoming filled with the blood poured into them from their respective venous trunks, contracted simultaneously, and propelled the blood each into its corresponding ventricle, this being in a state of relaxation at the time; how that the two ventricles, thus filled and distended, contracting simultaneously in their turn, propelled the blood each into its own great artery (regurgitation into the auricles being prevented by the auriculo-ventricular valves). Harvey next ascertained that there is no active dilatation of the great arteries, as was previously supposed, whereby the blood is sucked into them as air is into a bellows, but that the pressure of the blood propelled by the systole of the ventricles into these vessels dilates them by distension and so causes the arterial pulse, whilst by the succeeding elastic reaction of their distended walls during the diastole of the ventricles pressure is made, so that the onward course of the blood is promoted (regurgitation into the ventricles being prevented by the play of the semilunar valves). Hereby that portion of the force of the cardiac blood-pressure which was expended in producing the distension of the great arteries is reconverted into propelling force, which may be designated arterio-parietal pressure. Having thus acquired a clear conception of the mechanism of the action of the heart and great arteries, Harvey was enabled to trace with scientific precision the course of the blood in the veins to the heart, and in the arteries from the heart. But though he proved by physiological experiment that the blood passes from the extreme ramifications of the arteries into the radicles of the veins, he could not discover the exact anatomical mechanism by means of which this is effected. In speaking of the transmission, therefore, Harvey contented himself with the general expression that it takes place through the "pores of the flesh," intimating, however, his belief that there must be for the purpose some kind of *artificium* as admirable as that by which the blood is transmitted through the cavities of the heart from the great veins to the great arteries, and which, from the size of that organ, he had been able to make out with the naked eye. In his attempts to discover the

"artificium" in nature by which the blood flows from arteries to veins, Harvey examined, by means of the naked eye armed with his "perspicillum," the choroidal and spermatic plexuses. In this research he thought he detected small arteries entering large veins by penetrating their walls obliquely in the manner the ureters open into the urinary bladder. He did not, however, attach much importance to the observation. Direct inosculation of small arteries with veins has been alleged on the authority of injected preparations, but I do not know of any special examination of the plexuses mentioned by Harvey having ever been repeated so as to verify or disprove such a direct inosculation between arteries and veins therein. Some fifteen years ago, however, I discovered (as already repeatedly mentioned elsewhere) that while there are no capillaries in the mesentery of the frog (the vessels therein being solely arteries to and veins from the capillary system of the intestine), the stream of blood in a minute artery may be seen here and there entering a venous trunk directly—*the only sure demonstration of the fact in question*. Before thus opening into the side of the vein the small artery loses its muscular coat. This observation of mine, it is to be remarked, was made under microscopical examination of minute vessels, whilst Harvey's, as above mentioned, was made on vessels visible to the naked eye.

The gap in the demonstration of the mechanism by which the blood passes from arteries to veins was first filled up a few years after Harvey's death by the celebrated Italian physician, Marcello Malpighi, who in the course of his experimental research "De Pulmonibus" discovered, by means of a very simple form of compound microscope constructed by himself of two convex lenses—the one being the object-glass and the other the eye-piece,—the blood flowing from arteries into veins through an intermediate system of very minute tubules. This most important crucial fact was observed in the lung of a frog, and the drawing which Malpighi gave of it, representing the abrupt termination of the arterioles in the network of the intermediate tubules, and the equally abrupt commencement of venules from the union of these tubules, is true to nature. Subsequently, similar minute tubules (now called capillary vessels), with the blood flowing in them from arteries to veins of the aortic system, were demonstrated in the web of the frog's foot, the tail fin of small fishes, the web of the bat's wing, and other transparent parts of living animals spread out under the microscope. Here it is of the highest interest and importance to note the fact in nature that whilst, as just mentioned, the last ramifications of the arteries in the lungs do not taper towards the capillaries, but are abruptly resolved into brushes of these vessels, the last ramifications of the arteries of the aortic system become gradually smaller towards the capillaries. In Plate IV. of my essay in Guy's Hospital Reports for October 1850, it will be seen that the strongly muscular walled arterioles of the frog's web are actually of narrower calibre than the capillaries into which they open. In correlation with this anatomical peculiarity, and of paramount importance, is the physiological fact in nature that the walls of the pulmonary arterioles, not being strongly muscular, are not endowed with much contractility, so that their calibre is not liable to any great constriction like the arterioles of the aortic system. In consequence of this provision the blood flows freely and uniformly in the capillary network of the lungs, without liability to any such interruption as would interfere with the requirements of respiration; whereas, by virtue of the opposite provision presented by the arterioles of the aortic system, the circulation in the capillaries thereof undergoes variations in respect to freedom in conformity with the varying requirements of nutrition and secretion.

Crucial as the discovery of the capillary system and the passage of the blood therethrough from the arteries to the veins was, much still remained to be traced out in regard to the mechanism of the circulation in the extreme vessels. The correct exposition of the tonic contraction of the muscular walls with constriction of the calibre of the extreme arteries on the one hand, and the relaxation of the muscular walls of the said arteries with dilatation of their calibre by distension with blood under the influence of *vis a tergo* or cardiac blood-pressure on the other, supplied us with facts constituting the key without which we could have had no explanation of the variations in respect to emptiness or fulness of the capillaries and venous radicles of a part.

In my essay in Guy's Hospital Reports for October, 1850, the mechanism of the action of the muscular walls of the vessels, the effect thereof on the flow of blood, and the dependence of the phenomena on nervous influence are traced out. Now, however, in modern biological phraseology, vaso-motor nerves would appear to be the sole agents, little or no mention being made of the mechanism of the action of the muscular walls of the vessels as the first point requiring to be understood.

In the tonic contractions of the walls of the small arteries we have presented to us a manifestation of the action of a particular kind of muscular fibres, and in that action a manifestation of the influence of a correspondingly particular kind of vaso-motor nerves, whilst by the resulting constriction of the calibre of the arteries the pressure exerted on the blood streams resists, according to the degree of constriction, their onward flow; whereas the *dilatation* of the said arteries is a manifestation of the *distension of their calibre* with the fuller streams of blood (under the influence of *vis a tergo*), permitted by relaxation of their muscular walls in consequence of remission of the activity of their vaso-motor nerves. The emptiness and fulness of the vessels which we can see with the naked eye in the rabbit's ear alternating at intervals of time, though not rhythmically, are thus explained, as are also the alternating pallor and redness of the face which may be seen in blushing. The knowledge in question, moreover, in conjunction with the knowledge as to how the blood-corpuscles conduct themselves under the varying conditions of the width of the vessels and freedom of the flow of blood, is a key to the elucidation of the mechanism of the establishment of vascular congestion, as treated of in a previous article; whilst, on the other hand, as above shown, we have a key to the elucidation of the obstruction to the pulmonary circulation in asphyxia in the fact that, though the arterioles of the lungs, in consequence of the small degree of contractility of their walls, are not capable of such constriction of their calibre as could cause an interruption to the passage of the blood through the capillary network to the pulmonary venules, the red corpuscles in the capillaries are extremely susceptible of becoming aggregated in consequence of any interruption to their due aeration, so that stasis is produced.

Then, again, the discovery of the rhythmical or heart-like contractions of the veins of the bat's wing brought into the science of physiology the knowledge of an unexpected mechanism—an "artificium admirabile" *par excellence*—for promoting the onward course of the blood when, by reason of the peculiarity of an organ in respect to distance from the heart, the propelling force thereof may be inadequate. In these rhythmical contractions we have presented to us a manifestation of the action of peculiar muscular fibres, and in that action a manifestation of the activity of peculiar vaso-motor nerves; whilst in the resulting constrictions of the calibre of the veins, backed by valves, we recognise a means by which propelling pressure is exerted on the blood akin to that exerted by the systole of the heart. In the case of the said veins, however, the rhythmical acceleration of the stream of blood causes no pulsation of those vessels such as that of the arteries, which is caused by the propulsion of blood into them by the systole of the ventricles.[1]

Here I would refer to the remarks on blood-pressure as directly manifested in nature, in my article on Vascular Congestion (THE LANCET, July 18th), to the remarks above made on the constrictions of the calibre of small arteries from contraction of their muscular walls under nervous influence, and to the remarks in my article (THE LANCET, Nov., 1884) on the alleged active dilatation of small arteries under the influence of imaginary vaso-dilator nerves as objections which suggest themselves to the validity of the assertion made from the chair at the anniversary meeting (1884) of the Royal Society, that "there can be no doubt that a large proportion of our present knowledge of blood-pressure and of the vaso-motor system is due to Professor Ludwig of Leipzig and his numerous followers." Mendelssohn, it will be remembered, composed songs without words, but here were words without a tune. The vice-president of the Royal Society, who occupied the chair on the occasion referred to in the absence of Mr. Huxley, not being a physiologist, must have had the words dictated to

[1] See strictures (in the postscript to my second last article) on the blundering of Professor Landois and his English translator in respect to this. I may mention that I once examined the wing of a kalong to feel if there was any pulsation of the large veins, but detected nothing of the kind.

him. Were they dictated by Professor Michael Foster, the physiological secretary, and Professor Burdon Sanderson, the only other physiological member of the then Council of the Society, whose shortcomings in a knowledge of the subject I have before referred to? It will be observed that no particulars were given by the vice-president as to any crucial facts, for which we were informed how much indebted physiologists are to the physiological laboratory of Leipzig.

To return to Harvey's observations. The soundness of his crucial exposition of the mechanism of the action of the heart and great arteries, which, as has already been shown, constituted the foundation and starting-point of his grand physiological thesis, was, *incredibile dictu*, questioned in the preface to the edition of the works of Harvey published about the middle of last century at the expense and under the auspices of the Royal College of Physicians of London, and the old error, which Harvey had taken so much pains to refute, upheld. The editors even went so far as to express surprise that Harvey, who had so successfully traced the course of the blood through the body, should have committed such a mistake as to suppose that the pulsatory distension of the great arteries, with the blood propelled into them by the systole of the ventricles, is not the manifestation of an active diastole of their own, and that the succeeding constriction of calibre by elastic reaction of their walls is not the manifestation of an active rhythmical systole thereof! The editors were too inexperienced to comprehend the mechanism of the elastic reaction by means of which the walls of the great arteries, backed by the semilunar valves, exert propelling pressure on the blood in succession to their own distension with the blood propelled into them by the pressure of the ventricular systole, and how, therefore, the cardiac propelling force therein expended is resolved into elastic vaso-parietal pressure, also propelling, in consequence of regurgitation being prevented by the semilunar valves. Not less incredible is it, on the other hand, that in a Croonian lecture read before the Royal College of Physicians about the year 1808 by Dr. Thomas Young, the exposition of the mechanism of the action of the heart and great arteries, as given by Harvey and resolutely upheld by him nearly 200 years before, was reproduced as new, though with so little confidence in its validity that it was not strongly insisted on! Herein Dr. Young must be censured for unpardonable negligence in not having studied Harvey's "Exercitatio," while we must give him credit for having independently hit upon the exposition in question notwithstanding that he argued for it in so faint-hearted a manner. The editors of the works of Harvey, though they betrayed incapacity by their erroneous criticism of his demonstration, certainly could have had no desire gratuitously to detract from it, like so many others equally ignorant; and Dr. Thomas Young, though negligent, must be acquitted of any intention to plagiarise. The misappreciation of Harvey's merit in respect to the subject in question by the editors of his works in one direction and by Dr. Young in the opposite direction does not, however, appear to have been challenged at the time. In a lecture on the Circulation which I delivered at University College Hospital a few years ago, and which was printed in THE LANCET, I insisted on the value of Harvey's exposition of the mechanism of the action of the heart and great arteries, and was pleased to find that Dr. Ogle, the next Harveian orator following the delivery of my lecture, vindicated the value and ownership of Harvey's discovery by quotations from his "Exercitatio."

(To be concluded.)

ON FÆCAL ACCUMULATION.

By FREDERICK TREVES, F.R.C.S.,
SURGEON TO AND LECTURER ON ANATOMY AT THE LONDON HOSPITAL.

THE humoral pathology, although it has long since ceased to possess a scientific being, has not yet died out in the public mind. The practical outcome of the creed was this. The principal diseases to which flesh is heir are due to certain humours in the body; these humours are of an ambiguous and spectral character, their action is somewhat incontinent and casual, but all, save the most malignant of them, possess a quality which allows them to be got rid of by purging and bleeding. Bleeding has ceased to be popular; it is too heroic a measure for "this slack-sinewed age." But it is still an article of faith with the public that purging is both desirable and essential, that it ranks as a panacea, and that constipation is a condition that must be very emphatically avoided. At the same time the public definition of constipation is not marked by illiberality. There are few who do not hold that the intestinal canal is the one part of the body the care of which is under their personal supervision. It is common for patients to say that with regard to the bowels they will attend thereto, and the privilege of at any time directing a peristaltic hurricane to pass through the intestine is jealously preserved. It may be said that at least three-fifths of the patent and popular medicines now in use have an aperient action, and the domestic pharmacy that contains ipecacuanha and some purgative drugs is tolerably complete.

Now, it may fairly be questioned whether constipation, in the usually accepted sense, is so injurious as is supposed. The term is difficult to define, since it is scarcely possible—unless appeal is made to individual cases—to state precisely where normal action of the intestine becomes abnormal. Constipation is a condition that essentially involves the colon. It is true that disturbances in the small intestine or even in the stomach may be direct causes of retention of fæces, but the retention that results in such cases has little concern with other than the larger bowel. The physiology of the colon in its entirety has yet to be written. In most herbivorous animals the colon no doubt takes an important share in digestion, but in the carnivora and in man it appears to be little more than an internal receptacle for fæces. In a certain sense the ileo-cæcal valve in man represents the real anus. Beyond it there is little but purely excrementitious matter, and the presence of a colon allows that matter to be so retained as to be discharged only at intervals. Some absorption is obviously continued in the large intestine, but there is little evidence to show that this part of the bowel takes any considerable share in the general digestive process. It would appear that the organic elements of the food, by the time the colon is reached, are practically putrid and beyond the power of assimilation. This part of the canal is comparatively inactive, its nervous and vascular organisation is comparatively low, and the larger segment of it is under the control of a subsidiary nerve plexus. It is hard to realise that the retention of fæcal matter in this dull tube can lead to such evil ends as constipation is credited with inducing. I take it that moderate constipation involves no alteration in the character of the retained matters. It is concerned rather with quantity, and if this be so the phenomena accredited to the inactive bowel must depend to a very great extent upon the simplest mechanical conditions. It is not difficult to cite cases of constipation that have lasted for one, two, or even three weeks without producing disturbances of health, and there are many perfectly healthy individuals whose bowels throughout the whole of their adult life have never acted more than once or twice a week. Cases of extreme fæcal accumulation show that an engorgement of the colon with fæces need not, and usually for a long time does not, affect the passage of matters through the small intestine. There are instances where the colon has been occupied by incredible quantities of fæcal matter, and yet the ileo-cæcal valve has remained staunch and the ileum undistended. Indeed, the very existence of large accumulations in the colon shows that the passage of the contents of the smaller bowel may remain for weeks and months unaffected, for it is well known that any substantial impediment to such passage will very soon provoke serious symptoms. The steady pouring day by day of additional fæcal matter from the small intestine into an already over-distended large intestine is a striking feature in connexion with this part of the subject. In short, I think that there are grounds for believing that the ill-effects of simple constipation are much exaggerated. The individual whose mind is enthralled by what may be termed the aperient bias is apt to ascribe any symptom to constipation, to regard it as a disease, and to lose sight of the fact that the inactivity of the bowel and its reputed effects may together be symptoms of some primary and ignored disturbance. He who is profoundly impressed with the influence of the colon upon human welfare has a large mental factor in his symptoms, and the relief he experiences from aperients is also not unmixed with a mental element.

Constipation depends upon many different causes, but an aperient is an aperient. Few tarry over the selection of

their drug. Routine and purgatives are nearly inseparable. The trouble may be due to improper food, or to indigestion, or to a failure in the muscular apparatus of the bowel, or to the too ready absorption of fluid from the gut; but one aperient—the aperient of the period—serves for all cases. The food is not changed; the stomach disturbance is left alone, or ascribed to constipation; but the bowels are made to act, and there is relief of mind. Dr. Lauder Brunton has shown that some forms of constipation can be best treated by opium, but such cases are more likely to fall under the influence of the aperient of the day. The trouble may depend upon a trifling impaction in the rectum, and it does seem a terrible physiological waste to cause that impacted mass to be practically washed out of the colon by fluid provided by an irritated small intestine. In such an instance the treatment is commenced at a point some twenty or thirty feet from the seat of the trouble.

Some popular ailments seem to be devised to foster aperient-taking. Biliousness is a common disorder. What biliousness is, in the popular sense, it is difficult to say. On inquiring of intelligent subjects of this disorder, I find that it may mean "an overflow of bile into the stomach," or "an excessive outpouring of bile," or "a diminution in the amount of the bile." The nature of the malady would appear to be of little moment, for all phases of it require aperients. Hospital patients, again, frequently clamour for "cooling medicine." Cooling medicines and purgative medicines are one. It is true that the latter remedies diminish the blood-pressure, but it is a question whether this effect is best obtained by disturbing the whole intestinal canal. Medical men are often a little to blame for the reckless use of drastic drugs. A common feature in the treatment of most maladies is advice with reference to keeping the bowels open. This advice is often given without due thought and without weighing the immediate and remote effects that may attend its adoption. Certainly the widespread and general use of aperients at the present day is a remarkable phenomenon of modern civilisation. The practice has probably increased since the scope of the practitioner has extended beyond the uninviting limits of blue pills and black draughts. The sale of aperient waters is in itself a most striking and unique commercial spectacle. There are individuals to whom an aperient is almost an article of diet. They may very fairly be stigmatised with the title of "aperient-drinkers"; and I think that the confirmed habit of aperient-drinking may well fall under the gentle criticism of the apostles of temperance. That this very extended and unreasoning use of intestinal irritants is productive of harm can hardly be disputed, and instances of grave disturbances following the continued use of aperients are not difficult to find. The conclusion, then, is this, that the evils of moderate constipation are overrated, that the treatment of the condition is often unscientific and empirical, and often conducted with evil effect. I have ventured to make these preliminary remarks upon constipation in general, because they may serve to pave the way to a consideration of the treatment of the more pronounced and serious forms of the disorder.

Fæcal accumulation is essentially a condition of the colon, and may be taken to be synonymous with obstinate constipation. If the bowels so act that the normal amount of excrementitious matter in the colon is not increased, it is obvious that constipation cannot exist. The small intestine plays an exceedingly important part in the causation of constipation, but the accumulation is in the colon. The more conspicuous effects fall upon that bowel. There is no evidence to show that collections may form in the small intestine and cause symptoms while the colon remains free. Indeed, the consistence of the contents of the ileum is such that an obstruction could hardly form without mechanical aid, or unless with those contents were carried a foreign body.

The causes of constipation are usually placed under three categories—(1) diminished peristalsis; (2) diminished secretion; and (3) diminished absorption. In all these the lesser bowel is intimately concerned. There is no doubt that intestinal indigestion is a very common cause of the present trouble. Assimilation being imperfect, the amount of excrementitious matter is increased, and it is probably discharged into the colon in a condition that is least likely to excite the movements of that bowel. The small intestine, moreover, is largely concerned in influencing the amount of fluid within the bowel, and it must also provide for the colon a kind of *vis a tergo*. Although the functions of the small gut may be imperfect and its action slow, yet it appears in due course to empty its contents into the colon. It is here that the accumulation takes place. It is added to day by day until its proportions may become enormous. Cases are recorded in which the sigmoid flexure has attained a circumference of twenty-seven inches[1], and the colon a diameter of five or six inches,[2] and in which the collected fæcal masses have amounted to many quarts,[3] or to ten, twelve,[4] or even twenty-six pounds.[5] Yet even in extreme cases the ileo-cæcal valve appears to remain firm, and the colon is distended to remarkable proportions, while the small gut is comparatively unaffected. Indeed, these huge accumulations would be impossible did not the ileum possess and maintain the power of discharging its contents. In one of the cases just alluded to[3] the constipation had lasted for six weeks, the colon contained fifteen quarts of fæces, and possessed a diameter of six to eight inches, yet after death the lower end of the ileum was only found to be "somewhat distended." The symptoms that attend fæcal accumulation are liable to remarkable variation. The colon may be distended and blocked from the cæcum to the rectum, and yet the condition may be attended—for some time at least—by no grave disturbances. The recorded cases of long-continued constipation prove this. Dr. Johnson of Washington has brought together a number of such cases in his valuable monograph upon this subject.[6] The collection includes instances of constipation existing without relief for periods varying from three to eight months.

The symptoms of continued chronic constipation are familiar and need not be enlarged upon. It may, however, be questioned whether the intestinal dyspepsia that so often accompanies the condition is a consequence rather than a cause of the chief troubles. That there is nothing of itself exceedingly deadly in chronic constipation may be considered to be proved by the cases just alluded to where the evil had been long abiding. The chief danger in fæcal accumulation depends upon the sudden advent of symptoms of acute intestinal obstruction, and it is after the appearance of such phenomena that the patient very usually dies. To this condition, in which acute symptoms are engrafted upon chronic, the name of "ileus paralyticus" has been given. It is supposed that the phenomena depend upon paralysis of some portion of the bowel. "To produce ileus paralyticus," writes Leichtenstern, "it is sufficient that a long portion of the intestine should be incapable of peristaltic action. The intestinal contents collect in this and oppose an obstacle to the peristaltic action of the portion of intestine lying above it, which is greater as the paralysed piece is longer." This explanation would hardly appear to be satisfactory under all circumstances. In cases of extensive fæcal accumulation, the colon, or a large segment of it, forms an inert and almost passive tube, capable of but trifling peristaltic action, even if its walls be not actually paralysed. If this paralysis should extend to the small intestine the phenomena may be explained. As has been already stated, however, the lesser bowel appears to be often capable of emptying its contents even in instances where the colon is already enormously distended and is practically in the condition of the paralysed segment mentioned by Leichtenstern. Under such circumstances the engorged colon, with its stagnant contents, must have for no short period of time formed a decided obstacle in the intestinal canal, and yet the condition has not been attended by other than the somewhat trifling symptoms of chronic constipation.

I would venture to think that the outset of acute symptoms in the course of these chronic cases may depend in some few instances upon abrupt occlusion of the colon by torsion or kinking. By such an accident a sudden interruption would be brought about in the line of any peristaltic movement, and an injury would be inflicted upon the intestinal nerve plexus that, in the already critical state of the canal, would form the starting-point for the phenomena of acute obstruction. In another set of cases the acute phenomena are due to the peritonitis that may attend fæcal accumulation, and to which allusion will be made later on. In other instances—and these form, no doubt, the greater number—the acute and possibly final trouble depends upon a distension of the small intestine. The long-tried ileum becomes at last exhausted, the limit of its muscular strength

[1] Duplaix: Le Progrès Méd., Paris, 1877, tom. v., p. 953.
[2] Lewitt: Chicago Med. Jour., 1867, p. 359.
[3] Peacock: Trans. Path. Soc. Lond., vol. xxiii., p. 104.
[4] Lamaurier: Archives Gén. de Méd., Paris, 1824, p. 410.
[5] Chelius: Heidelberg Med. Ann., 1838.
[6] Pepper's System of Practical Medicine, 1885, vol. ii., p. 646.

is reached, material accumulates above the valve, a distension of the terminal part of the small intestine follows, and the physical conditions needed to produce symptoms of acute obstruction are present. It is often to be observed in clinical records that in cases of chronic obstruction acute symptoms have followed the administration of a purge. By such means matters are hurried through the small intestine, an accumulation takes place above the ileo-cæcal valve, the ileum becomes distended and possibly paralysed, and a fresh train of symptoms is prepared. The sudden accumulation forms a burden that is beyond the strength of the overtaxed ileum. It is the last feather, and the bowel succumbs.

A conspicuous feature in long-abiding constipation is the fæcal tumour. It is, however, by no means constant, since a considerable accumulation may occur within the colon without a well-differentiated tumour being formed. Fæcal tumours are most common in the sigmoid flexure, at the apex of its loop, then in the descending colon and about the flexures, and are least frequent in the ascending colon. The cæcum would appear to be more usually the seat of casual or temporary accumulation than of definite stercoral tumours. These tumours have led to the strangest and most varied errors in diagnosis. It is well to notice that they may change their position. Such change may depend upon an actual progress of the mass along the colon, but as often it is due to a change in the position of the coil in which the mass is lodged. This may be met with when the tumour occupies the centre of the sigmoid loop, or any part of an elongated and distorted transverse colon. In the next place the tumour may grow. Its increase may depend upon real additions to its bulk, or to circumstances that have rendered its parts more prominent. It may be movable or it may be fixed, and it is well to recognise the fact that it may soften. Its outline varies, and the greatest irregularities in form are met with in such as occupy the sigmoid loop or the descending colon. This irregularity most usually depends upon certain nodular projections that have been moulded within the sacculi of the bowel. The more ancient of the masses may become in time almost encysted. This is again especially to be met with in the sigmoid flexure. The tumour in such a case occupies an enormous sacculus, and may not project sufficiently into the lumen of the bowel to cause a pronounced degree of obstruction. In another class of case it would appear as if a channel for the passage of fæces had been opened up by the side of the accumulation, such channel being probably formed by the partial disintegration of the mass. "Numerous cases," writes Leichtenstern, "are recorded in which old people who have had normal evacuations daily, and even diarrhœa, have died with symptoms of impermeability of the intestine, and the rectal ampulla and colon have been found filled with hard fæcal masses of astonishing weight."

(To be concluded.)

TWO CASES OF

POISONING BY BICHROMATE OF POTASH.

By JOHN WAUGH, M.A., M.D.

THE comparatively few reported cases of poisoning by bichromate of potash—some eight (?) in all—appear to me to make interesting the publication of two instances which recently came under my notice. Both were suicidal in intention: in one case the man recovered after being several hours *in articulo mortis;* the other proved fatal. The interest is enhanced by the fact that in each case the quantity swallowed is known, as also that the character of the symptoms and their duration can be accurately recorded. No fatal case seems to have been published since 1866, when a continental observer mentioned the instance of a woman aged twenty-four, who died from the effects of the bichromate taken to procure abortion. This case is given by Dr. Taylor,[1] who mentions three other instances of death from poisoning by the same salt. In the first, a man aged sixty-four, was found dead in bed after having twelve (?) hours previously taken some dye-powder consisting of bichromate of potash mixed with cream of tartar and sand. The amount of the irritant taken is not known. There was neither vomiting nor purging, though this (the author remarks) is by no means an unusual occurrence even with irritants far more powerful than the bichromate of potash. The second fatal case was one in which *two drachms* of the substance killed a woman in four hours. She suffered from violent vomiting and purging at first, then fell into a state of collapse. The third was that of a man who accidentally received "a small quantity" of the solution of the bichromate into his mouth when drawing it off by a syphon. In a few minutes he perceived great heat in the throat and stomach, and this was followed by violent vomiting of blood and mucus, which continued incessantly till his death in five hours. In this case the poison acted as a corrosive irritant. One man after swallowing two ounces recovered on being treated with the stomach-pump, olive oil, and diluents. Woodman and Tidy[2] give one additional case from Christison in which death resulted in an adult male in fifty-four hours after he had taken an uncertain quantity. Guy and Ferrier[3] describe the bichromate as a strong irritant poison, and say "it has more than once proved fatal"; they cite as an example the case related by Dr. Taylor of the woman who died from the effects of taking two drachms.

CASE 1.—On August 8th last my assistant was called to see J. S——, a man, twenty-four years of age, a French-polisher, who had three minutes before swallowed in solution *half an ounce* of bichromate of potash, which is largely used as a staining agent in his trade. He found him very pale, semi-conscious, unable to stand without the support of two friends, and "doubled up" by extreme pain in the stomach. A mustard emetic was immediately administered to him, and he brought up a quantity of greenish liquid. He was sick several times. Within ten minutes of swallowing the salt, diarrhœa began, and for the next thirty minutes which elapsed before I saw him the bowels were continuously relaxed. During this time he sat in the watercloset taking in a mechanical way the chalk mixture my assistant gave him at intervals. Forty minutes after he took the poison, I found him in an apparent state of collapse, pulseless, almost unconscious, unable to speak, but diarrhœa not so continuous. I ordered him to be put in bed, hot bottles to be applied to his feet, a teaspoonful of brandy with a little tincture of opium to be given every few minutes, to relieve, if possible, the choleraic symptoms from which he was suffering. I then left, expecting to hear of his death within the next hour or two. On calling later, I was surprised to find him recovering from the state of collapse. He made steady progress during the next week, and was sufficiently well on the eighth day to attend the Worship-street Police-court, where the magistrate, on his pleading guilty to the charge of attempted suicide, dismissed him with a caution, and naïvely threatened to deal with him severely when he again appeared on a similar charge. The man resumed work on the following morning, nine days after taking the poison. There can be no doubt that the prompt administration of the emetic alone saved his life.

CASE 2.—At 10.30 on the morning of Sept. 5th, my friend, Dr. Thos. Johnstone, was called to see Mrs. W——, a woman about forty years of age. He was told that at 10.10 she had taken some "potash." On his arrival he found that she had swallowed in solution a pennyworth—half an ounce—of bichromate of potash, which she had bought at a neighbouring chemist's an hour or two previously. She had taken the four drachms, with the exception of a few crystals, which had only partially dissolved, and which were adherent to the vessel out of which she drank the poison. On ascertaining the nature of the case, Dr. Johnstone sent the patient's husband with a request that I should see her with him. She died, however, before I reached the house. Dr. Johnstone found her, twenty minutes after swallowing the bichromate, in great agony, "doubled up" and rolling on the floor. She was quite conscious and spoke coherently. She admitted taking the stuff, and said she had had much retching, but no vomiting. Her pulse was very feeble; her face pallid. An emetic of mustard-and-water was at once administered, but without effect. Within a few minutes her face became livid, her pulse imperceptible, her limbs flaccid, she lost consciousness, and a state of complete collapse supervened. She was at no time sick; once she passed a black liquid motion. She died at 11, fifty minutes after taking the

[1] On Poisons, third edition.

[2] Forensic Medicine and Toxicology. 1877.

[3] Forensic Medicine, fifth edition, 1881.

salt. At the inquest, three days later, the verdict was the customary "Suicide while in a state of unsound mind."

Bichromate of potash is not mentioned in the Poisons Act, and there are consequently no restrictions on its sale. The ease with which it can be procured suggests the advisability of its purchase being made more difficult.

London-wall, E.C.

CASES OF UTERINE FIBROID POLYPI.

By WILLIAM A. DUNCAN, M.D., F.R.C.S.,
ASSISTANT OBSTETRIC PHYSICIAN TO MIDDLESEX HOSPITAL.

THE following cases, in each one of which there was some point of special interest, appear sufficiently important to warrant publication.

CASE 1. *Sloughing polypus hanging external to vulva connected to prolapsed uterus by thick pedicle.*—Miss B——, aged fifty-eight. Catamenia began at fourteen; always regular, but painful, until she was forty-one years old, when she had a severe flooding, and for four years subsequently there were frequent recurrences of this. Between the ages of forty-five and fifty-eight (present time) she has had no hæmorrhage and has been in good health, but has complained of a dragging sensation in the lower abdomen. In January, 1884, she began to feel weak, and first noticed something to protrude from the vulva; this disappeared on lying down. Three months afterwards there was some loss of blood for a fortnight, followed by a thick yellow discharge; the tumour had increased in size, and there had been difficulty in walking and pain in micturition, so that at last the patient felt compelled to seek advice. She had always led a very quiet, sedentary life, and does not remember to have ever strained herself by lifting or in any other manner. When seen on June 30th, 1884, the patient was a well-nourished, florid-complexioned woman. Protruding from the vulva was a sloughy-looking mass the size of a large orange; a pedicle the size of two or three fingers was found to pass from it through a patulous os uteri, which lay just within the vulva; the pedicle was attached to the upper part of the posterior wall of the uterus; the cavity of the uterus was enlarged, the sound passing four inches. On the next day (July 1st) an operation was performed, without an anæsthetic, in the lithotomy position. The tumour was gently drawn down, and an écraseur wire passed round the pedicle close to its attachment to the uterus. No hæmorrhage followed removal. The stump of the pedicle and cavity of the uterus were mopped out with tincture of iodine, and the uterus replaced and retained in position by plugs of wool saturated in carbolised glycerine.—July 2nd: Slept well. Temperature 102°. Plugs removed. Vagina washed out with iodised water and fresh plugs reinserted.—3rd: Temperature last night 103·2°; this morning 98·8°. Uterine cavity syringed out with iodised water, during which a small piece of membrane came away.—7th: No bad symptom whatever; feels well. Syringing of uterus continued.—16th: Uterus is high up in good position; indiarubber ring pessary inserted.—21st: Has been getting up daily; feels perfectly well. Uterus keeps up well. Went home.—Sept. 15th: Seen to-day. Says she has not felt so well for years. No discharge whatever. Asks to be allowed to still wear the pessary.

CASE 2. *Multiple fibroids with large intra-uterine polypus.* Mrs. R——, aged forty-three; married at twenty-one; no children or miscarriages. Catamenia began at eighteen; were regular until patient was thirty-four, when she began to lose a great deal at the periods, the loss sometimes continuing the whole month round. When twenty-three years old she began to have a greenish-yellow thin discharge, for which she sought advice, and was told she had "ulceration of the womb." This loss has continued more or less to the present time. In February, 1884, she first noticed a swelling in the right side of the lower abdomen; this appeared movable, and has gradually increased in size. There was no difficulty in defecation or micturition. When seen, she was a thin and very anæmic woman. In the middle of the lower abdomen was a firm smooth mass extending to within an inch and a half of the umbilicus. On vaginal examination the uterus felt much enlarged; the cervix was spread out as at the commencement of parturition, and the os uteri was dilated to the size of a shilling, its margin being very thin and exceedingly rigid; within the os uteri was felt a hard mass, round which the sound passed for five inches. On August 26th, 1884, ether having been administered, an operation was performed in the lithotomy position. In order to gain room for manipulation, the cervix uteri was divided to the extent of about three quarters of an inch on either side by the thermo-cautery, after which the tumour was found to be attached to the upper part of the posterior uterine wall by a pedicle half as thick as one's wrist. The wire of an écraseur was placed round this, and the tumour cut off; there was no hæmorrhage. There was great difficulty experienced in getting the tumour (owing to its size) out of the uterine cavity; it had to be cut into several pieces by the écraseur wire and scissors. After its removal, on exploring the uterus, there was found a good-sized intra-mural fibroid in the anterior uterine wall, and a smaller one in the lower part of the posterior wall; the latter was commencing to project into the cavity. The uterus was mopped out with tincture of iodine, carbolised glycerine plugs inserted into the vagina, and a morphia suppository into the rectum.—Aug. 28th: Has been quite comfortable, but complains this morning of a little pain. Temperature 99·6°. Uterus syringed out, and a glycerine and iodoform plug inserted into vagina.—Sept. 3rd: Has progressed most favourably. Temperature has kept normal; very slight discharge.—12th: Catamenia appeared last week. There was a moderate loss for two days, then scanty for two more days, when it ceased. The patient says this is the best period she has had for many years. Fundus uteri can be felt just above pubes.—21st: Went home feeling well.—October, 1885: This patient has come to see me at intervals since the operation. She has no floodings now, although the periods are rather profuse; takes ergot on and off. The uterus has not perceptibly increased in size.

CASE 3. *Cystic polypus projecting into vagina.*—Mrs. H——, aged forty-five, married twenty-three years; has had six children and two miscarriages; last confinement nine years ago. Present illness began four years ago with a more or less constant watery discharge, somewhat blood-stained, unaccompanied by pain until lately, when a pain of an aching and sometimes shooting character has come on, beginning in the lower abdomen and extending round to the back. This pain was most severe when the discharge was most copious. No interference with defecation or micturition. When seen on Sept. 16th, 1884, the patient was a well-nourished woman. On examination the vagina was found to be occupied by a round tumour the size of an orange, attached to the uterus by a pedicle as thick as a man's thumb. It was removed with the écraseur in the ordinary manner, without an anæsthetic. On section the tumour was found to be fibroid in character, with numerous small cysts interspersed through it; these cysts had smooth walls, and contained a red fluid indistinguishable from blood.—Oct. 1st: Patient has progressed uninterruptedly well, and went home to-day.

CASE 4. *Fibroid polypus of cervix.*—Mrs. N——, aged forty-two. Married twenty years; has had six children, the youngest seven years old. She began to suffer from "flooding" in February, 1884; this continued on and off until she sought advice ten months later. Alternating with the hæmorrhage was a thin, slightly blood-stained, profuse discharge. When seen on January 10th last, the patient was a thin, anæmic woman. On examination the vagina was found occupied by a large, firm, smooth, and red tumour, which could be felt attached to the posterior cervical lip, just within the os uteri, by a pedicle as thick as a man's thumb; this was cut through in the usual way with an écraseur, and iodine applied to the interior. On January 24th the patient was well; uterus of normal size; went home.

CASE 5. *Fibroid polypus of cervix with pedicle adherent all round cervical canal, simulating complete inversion of the uterus.*—Mrs. J——, aged thirty-nine. Married nineteen years; has had five children, the youngest ten years old; no miscarriages; all the confinements were quite natural. Catamenia began when the patient was thirteen, and were always regular up to marriage, but excessive in quantity and accompanied with considerable pain for the first day or two of each period. The present illness began two years ago (eight years after the last child was born) with a sudden attack of "flooding" and of "falling of the womb." She had several subsequent attacks of pain and hæmorrhage, which were always increased by standing up. The prolapse was accompanied by retention of urine. Two or three days after

the onset of her illness the patient sought advice at a large London hospital, where she had a pessary inserted, but after wearing it for two months it was removed. In April, 1885, she was again attacked with severe pain in the lower abdomen and a recurrence of the prolapse; she had no more flooding, but a profuse yellow discharge, accompanied by almost incessant pain, which she describes as resembling labour pains. In August she again applied for relief at the same hospital, and was admitted, when she was told her womb was "turned completely inside out." On Sept. 4th the patient came under my care, when her condition was as follows: A healthy-looking woman, complaining of pain and that her womb comes down. On examination, the vagina was found to be filled by a large pear-shaped mass, smooth and red on the surface. On passing the finger above it, it apparently was continuous with the vaginal roof, though there was a slight rim at the upper part of the tumour, which was here about as thick as the cervix uteri. Bimanually the fundus uteri could not be felt in its normal position, but on rectal examination a mass which corresponded with the uterine body could be felt above the vaginal tumour, and a sound in the bladder could not be made to meet the finger in the rectum. The tumour was then seized with a vulsellum, and drawn external to the vulva, without causing pain. It was then seen that the mass was continuous all round with the cervix uteri, except at one minute spot posteriorly, through which the uterine probe passed backwards for two inches and a half. It being evident that it was a case of adherent polypus, this was removed with an écraseur (without an anæsthetic). A small mucous polypus was also snipped off from the posterior cervical lip, just within the canal. The stump and the uterine cavity were mopped with tincture of iodide, and a glycerine plug inserted into the vagina.—Sept. 27th: The patient has had no rise of temperature since the operation; she feels quite well, and practically is so. Microscopical examination showed the tumour to be an ordinary fibrous polypus.

Remarks.—In the foregoing cases the following are the points which seem interesting:—(*a*) Case 1 shows how the contractions of a virgin uterus can, primarily, convert a submucous fibroid into a polypus, and then, secondarily, extrude this through the os uteri into the vagina; it also shows how prolapsus uteri can be produced by the weight of a polypus dragging this organ down; and, lastly, how complete rupture of the hymen may be due to pressure from within the vagina of a new growth from the uterus. (*b*) Case 2 is a nearly typical example of the various sites in which uterine fibroids are found, for not only was there a large fibroid polypus in the uterine cavity which had been a submucous fibroid at an earlier stage, but there was also an interstitial one in the anterior wall, and a third partly interstitial, partly submucous, in the posterior wall; there was no subperitoneal tumour detectable. Having removed the polypus, the question arose as to whether either of the remaining fibroids should be interfered with; but on consideration it was thought best not to do anything further, for although one felt tempted to cut across the capsule of the submucous tumour, there would probably be some purulent discharge from the stump of the pedicle of the polypus removed, and this getting into the fresh incision might have brought on septic inflammation. As the patient is now (more than a year later) free from menorrhagia and the uterus has not enlarged, it appears as if the wisest course was adopted. (*c*) The interesting point in Case 3 is that the polypus was interspersed with numerous small cysts, which were probably dilated bloodvessels — that, in fact, it was an example of that rare condition found in uterine fibroids, and called by Virchow "myoma telangiectodes seu cavernosum." Unfortunately the specimen was carelessly destroyed before a microscopical examination could be made of it. (*d*) Cases 4 and 5 are illustrations of the somewhat rare affection, fibroid polypus of the cervix; but, in addition to this, Case 5 is extremely interesting owing to the fact that adhesions had taken place between the pedicle and the margin of the os uteri (except at one minute point, which was difficult to detect); and thus, as no sound could be passed and the fundus uteri was not to be felt in its normal position, an experienced gynæcologist came to the conclusion that the patient was suffering from complete inversion of the uterus; indeed, I believe menstruation was demonstrated as taking place from the surface of the tumour in the vagina. On making a rectal examination, however, the uterus was felt distinctly above the tumour, and it was impossible to make the point of a sound in the bladder touch the finger in the rectum. Besides these, when the tumour was laid hold of with a vulsellum forceps and dragged down, the patient experienced no particular pain. We must not, however, attach very much importance to the differential diagnosis of a polypus being insensitive and an inverted uterus very sensitive; for last year a case of complete inversion of the uterus (which had existed for nine years) was admitted into my ward at the Royal Hospital for Women and Children, and in this case the inverted organ was quite insensitive. Again, in the case under discussion the history was unlike that of inversion. She was quite regular for eight years after her last confinement, when a "sudden flooding" took place. (*e*) Lastly, these cases help to point out the immense value of the free use of tincture of iodine in all operations on the uterus, in preventing inflammatory or septic troubles ensuing. Since it has been my practice in every case of operation on the interior of the uterus (curetting, &c.) to make free use of this drug, not a single instance of subsequent inflammatory trouble has occurred.

Harley-street, W.

CEREBRAL TUMOUR.

By JAMES VINCENT FITZPATRICK, L.K.Q.C.P.I., &c.

E. L——, aged forty, of fine muscular build and physique, being about six feet in height, an iron-turner in the Great Western Railway Factory, fourteen years ago had a fit, since which he has complained of headache at intervals. Four years since he was laid up with headache and unable to work for some weeks; more recently, eighteen months ago, he lost for awhile the use of his right arm and leg, suffering at the same time from very severe headache in the forehead and temples. These attacks followed each other at intervals of two months, but latterly every fortnight. Between the attacks he used to recover and resume work. This state of affairs continued until May 28th last, when he had to take to his bed, in consequence of agonising pain in his forehead and temples and paralysis of his right arm and leg. The day before he had walked three miles, falling twice, owing to a momentary attack of paralysis, which passed off as quickly as it appeared; but on the occasion of such attacks of paralysis he was seized by involuntary micturition. His eyes were very prominent, resembling the eyes seen in exophthalmic goitre, and during an attack became quite congested. His bowels were always constipated; strong purgatives afforded the greatest relief, with subsequent administration of bromide and iodide of potassium.

On the above date (May 28th) I found him at 8 A.M. with well-marked paralysis of right arm and leg, trying to roll from side to side and from his face to his back, quite unconscious, with slightly stertorous breathing. I ordered blisters across his forehead, behind his ears, and to the nape of the neck, which on former occasions soon afforded relief. On returning at midday, I found him much worse, with failing feeble pulse and very pronounced stertorous breathing more like snoring. He died at 4 P.M., never rallying.

A necropsy disclosed a tumour occupying the left middle fossa of the skull, attached to the brain by its membranes. It grooved the posterior and inferior margins of the anterior lobe of the brain, likewise the anterior and inferior margins of the middle lobe, having made quite a depression under the surface of the brain, the Sylvian fissure lying upon the tumour, which was as large as a duck's egg.

Having forwarded the tumour to Dr. Anderson, Guy's Hospital, where the patient had been treated some months previous to his decease, that gentleman brought it under Dr. Goodhart's notice, who, upon examination, found it to be an aneurysm of one of the cerebral arteries of unusual size and interest. Dr. Anderson, with my sanction, exhibited it before the Pathological Society of London, an account of which is sketched in THE LANCET of Nov. 7th, 1885, the tumour being placed in the museum of Guy's Hospital.

New Swindon.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY. A donation of £100 has been received by this institution during the past week from W. C. Brocklehurst, Esq., M.P., for the Macclesfield division of the county of Chester. A small legacy has also been received by the institution from the executors of the late Joseph Barlow, of Haslingden, the amount being £17 13*s.* 4*d.*

SEVERE PISTOL-SHOT WOUND; RECOVERY.

BY LOUIS F. H. BIRT, L.R.C.P., L.R.C.S. ED.

THE following case may be of interest to the profession generally, on account of its showing how a severe injury may be followed by very slight and temporary physiological symptoms.

On May 3rd of the present year I was summoned at about 9 P.M. to go to the village of Santo Domingo to see a case of wounding by pistol-shot. On my arrival I found that the wounded man, a miner, had been engaged in a semi-drunken brawl with a fellow-labourer, who, in a fit of exasperation, had drawn out his revolver (a Remington) and fired point blank at the man at a distance of about two yards. I examined him, and found a penetrating wound below the right eye, but no wound of exit. The malar bone was shattered. On passing in a probe, I found that the wound extended directly backwards along the floor of the orbit; but owing to not having proper instruments, and the place being very dark in which I found the man, I did not care to prosecute at that time my investigations far enough to ascertain the exact amount of damage, but I was able to note that the eyeball was destroyed, and was shrunken and flaccid. I gave the necessary instructions as to the application of fomentations &c., in order to keep down inflammation, and came away, saying I should return in the early morning. I had noticed that there was no charring of tissue.

On the following morning I returned as well equipped for the operation as my slender stock of instruments would permit of, in order to make a more formal examination, and, if possible, to extract the bullet from its lodgment. I may here state that my patient, from the time of receiving his wound, had been quite insensible and unconscious, and lay perfectly motionless; the pupil of the left eye was widely dilated, but the pulse, respiration, and temperature were nearly normal. I also found that, though the man could not speak, and remained in a quasi-comatose condition whilst undisturbed, upon the slightest attempt to touch or examine the wound he exhibited great signs of pain, moving his arms and rolling his body, but did not attempt to speak. I now placed him under the influence of ether, and proceeded to examine the wound; I found without enlarging it I could make no satisfactory investigation, and seeing that the globe of the eye was destroyed, and likely therefore in itself to be a source of danger, I determined to extirpate, examine, and follow up the track of the bullet from the orbit. Having done this without any greater difficulty than is usual in such cases as that of a burst globe, I examined the wound under more favourable circumstances, and, passing my finger into the orbit, found that the bullet in its passage had shattered the malar bone, passing along the floor of the orbit, smashing through the orbital plate of the superior maxillary bone and through the greater wing of the sphenoid; and from the direction it took, and the distance at which I finally found it, I consider it was embedded in the substance of the right middle lobe of the cerebrum. I passed my finger through the back of the orbit, and found in the track of the ball, and in the brain substance, a large number of bone splinters, which I removed as well as I could, but my finger was not able to reach nor discover the whereabouts of the ball; so I inserted a long probe, and at last, after carefully exploring and feeling my way, discovered the anxiously sought bullet, some five inches directly backwards from the orbit. Passing in a pair of urethral forceps, which were the only ones I had long enough for the purpose, after considerable difficulty I succeeded in extracting the ball, which was of 380 calibre; it was originally conical, but now a flat-ended and very jagged cylinder. I washed and syringed out the wound with tepid water, removing all débris and particles of broken-up and softened brain substance, and directed cold water bandages to be constantly applied and frequently changed; I also directed the patient to be frequently turned face downwards so that any pus might have free exit and be unable to burrow. I need not say that my prognosis was of the most unfavourable nature, as I never had the slightest hope of my patient recovering from the combined effects of wound and operation, although I considered myself only right in doing as I did. The man, however, some fifteen hours after the operation, recovered consciousness, and shortly afterwards began to talk, and when I returned to visit him, I found to my astonishment that he was so well and sensible that I gave orders to the police authorities to take his deposition. This declaration he was able to make with the greatest clearness and lucidity and without any hesitation, and the accuracy of his statements concerning the events preceding his being fired at was corroborated by several eye witnesses. From this time, apart from severe frontal headache and profuse suppuration, he had no bad symptoms, nor even any of special interest. His temperature rose slightly during the first few days, but never to any alarming extent, and twenty-one days after the patient was quite well, and his wound completely healed up. There was no loss of memory and no difference in his intellectual condition whatever, and, beyond occasional headache, nothing to indicate so severe an occurrence.

The patient has now been at work a month, and nothing is noticeable in him beyond the cicatrised wound and globeless orbit. I may add that the difficulties in dealing with this case were increased manifold from the absence of any skilled assistance.

I trust that the interest of this case will compensate for the great length at which I have narrated it.

Chantalis Nicaragua, Central America.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

WESTMINSTER HOSPITAL.

LYMPHO-SARCOMA OF GROIN; REMOVAL OF GROWTH AND CONTENTS OF SCARPA'S TRIANGLE; GANGRENE OF THE LIMB; AMPUTATION; DEATH FROM TETANUS; NECROPSY.

(Under the care of MR. RICHARD DAVY.)

THE following case is one which illustrates the great value of the rectal lever introduced by Mr. Davy, by means of which the circulation of either or both of the lower extremities can be controlled without causing embarrassment to the operator. A growth was removed from Scarpa's triangle, and with it the neighbouring diseased glands. All the important vessels were also removed from that region, and, notwithstanding the extent of the operation, a very small amount of blood was lost. The effect of the removal of the vessels was shown in the gangrene of the limb which followed, and for which amputation of the thigh was performed a fortnight later. The gangrene did not spread, and until the attack of tetanus, a week afterwards, there was every prospect of a successful result. The case is most important and interesting. We are indebted for the notes to Mr. Walter Arthur, surgical registrar.

F. E. D——, aged twenty-eight years, single, a reporter, was admitted on October 16th, 1885. The patient was a well-nourished, healthy-looking man; had had no previous illness with the exception of occasional bilious attacks. His father is living, aged sixty; suffers from gout. Mother living, aged fifty-seven; has occasional bilious attacks; otherwise healthy. Three brothers and four sisters living, all healthy; four died in infancy. Both grandparents lived to over seventy years of age. About seven years ago the patient first noticed a small "lump" the size of a pea situated on the upper and inner part of the right thigh; it was not painful, and it gradually increased in size up to last June, when it attained the size of a duck's egg. He was examined by a medical man, who diagnosed hernia complicated with an abscess. Poultices were applied for fourteen days. An incision was then made in the lower portion of the tumour, but nothing but blood came away. During the time the poultices were applied the growth increased very much in size. The patient was then seen by another medical man, and by his direction ice was applied. A consultation was then held with a third surgeon, when it was decided to remove the growth. This was done on

July 21st. The wound healed rapidly up to a certain point, when it ulcerated and broke down. While the patient was still in bed a second swelling made its appearance just above Poupart's ligament, increasing rapidly in size.

When admitted, there was a somewhat oval ulcer, measuring three and a quarter by two inches, situated at the upper part of Scarpa's triangle. It was deeply excavated; the surface was pale, glazed, and irregular, and the edges elevated and indurated, the induration extending about half an inch into the surrounding tissue. The remains of the old cicatrix extended about an inch and a half below the lower border of the ulcer. Just above Poupart's ligament, and extending for some three inches upwards, was a smooth hard tumour about the size of a duck's egg; it was firmly fixed to the subjacent tissue; the skin covering it was red and closely adherent. The patient was quite free from pain. The general health was good; tongue clean and moist; appetite good; bowels regular. Pulse 72; temperature 97·2°. Urine: sp. gr. 1018; acid; no albumen.

On October 20th the patient was put under the influence of ether. An incision was made along the whole length of Poupart's ligament, and continued down the inner side of the thigh for about six inches; another incision was made from the outer extremity of the first to the end of this. The whole growth was removed, together with the cicatrix and all the structures contained in Scarpa's triangle. The external iliac, femoral, and profunda arteries, and the external iliac, femoral, and profunda veins, were all tied. Part of the sartorius muscle was removed, and the lymphatic glands in the inguinal canal and iliac fossa. During the operation the common iliac artery was compressed by Mr. Davy's lever. The patient lost about three ounces of blood. No dressings were applied to the wound. The limb was wrapped in cotton-wool, and hot bottles placed in the bed.

Oct. 21st.—The patient passed a fairly comfortable night. The whole limb is quite cold.

22nd.—The temperature rose at 8 P.M. last evening to 103°, and fell again at midnight to 101°. The patient was fairly quiet and comfortable until about 5 A.M., when he had slight vomiting and complained of great pain and numbness in the leg. A dose of opium was administered, after which he was quieter. The temperature at noon was 102·2°; pulse 120.

23rd.—The patient passed a fairly good night. The temperature at 4 P.M. yesterday was 102·4°; at 4 A.M. to-day it was 99·4°, and at 12 noon 100·2°. Pulse 104. The foot and leg are of a dusky-red colour and very cold, and he complains of pain and numbness in the limb.

24th.—Passed a very restless night. Temperature 99·2°; pulse 100.

Nov. 2nd.—Since the last note was taken the patient has suffered a great deal of pain in the foot and leg. The temperature has ranged between 99·4° and 100·4°. The foot and leg are black and gangrenous to within a short distance of the knee. To-day the patient's skin is hot and dry; tongue furred. Pulse 130; temperature 102°. The leg is painful.

4th.—After a consultation amputation was decided upon. At 3 P.M. the patient was put under the influence of ether, and the thigh was amputated by the circular method, the bone being sawn through at the junction of the middle with the lower third. The edges of the wound were brought together with a single suture. No dressings were applied. The patient lost scarcely any blood.

5th.—The patient has passed a very restless night, but expresses himself as feeling much better this morning. Temperature 102·4°; pulse 112.

9th.—At 7.30 P.M. yesterday the patient had a slight rigor, the temperature reaching 105·6°; at midnight it had gone down to 103°.

10th.—The patient has passed a very restless night. Temperature 100°; pulse 116. He complains of slight sore-throat and stiffness of the neck.

11th.—The patient has had a slightly better night. Temperature 99°; pulse 116. His jaws are locked; neck rigid and head drawn back; risus sardonicus; body arched to the left side; spasmodic twitching of extremities. Up till 11 P.M. he took a considerable quantity of fluid nourishment and stimulant, but from this time was unable to take anything. The symptoms gradually increased until death, which took place at 10.55 A.M. on the 12th.

Post-mortem examination.—Rigor mortis present; viscera healthy to the naked eye. Beyond slight extravasations and vascularity of the cerebral hemispheres, neither the brain, spinal cord, nor nervous trunks gave evidence of any change. The stump was organising well, the wound in the right groin was healing, and the whole of the growth had been removed by the first operation. The collateral circulation was establishing itself. The external iliac artery had dwindled down to a fibrous cord as high up as the giving off of the psoas branch; the external iliac vein was obliterated entirely; the internal iliac artery was enlarged, and the internal iliac vein was plugged with blood-clot. The common iliacs (artery and vein) were normal. The microscopic appearances of the tumour were those of lympho-sarcoma.

NORTH STAFFORDSHIRE INFIRMARY.

NECROSIS OF SKULL; INTRACRANIAL ABSCESS SEVENTEEN YEARS AFTER INJURY; TREPHINING; DEATH; NECROPSY; REMARKS.

(Under the care of Mr. SPANTON.)

For the report of the following case we are indebted to Mr. R. Cann, assistant house-surgeon.

Thomas B——, aged thirty-one, carter, residing at Tunstall, was admitted on July 28th, 1885. When fourteen years of age, while playing with another lad, he was struck against a window-ledge, causing a depressed fracture of the skull in the region of the anterior part of the left parietal bone. He was comatose for several hours after the accident, but recovered without any interference. Since that time it is said that small portions of bone have come away at intervals. About Christmas, 1884, he ran a pin deeply into the head, but it was extracted, and the wound caused no trouble until June last, when a swelling was noticed over the puncture. This was opened by Mr. G. T. May, under whose care the patient then was, and released some pus. For some time previous to this the patient had suffered much from a fixed pain in the left temple. This was followed by great irritability of temper, and afterwards by a comatose condition, which steadily increased. For two days before admission he was quite unconscious.

On admission there was an incision rather above and behind the left temple, discharging pus. Pupils were equal. Pulse and respiration slow. There was some paralysis on the right side of the face. In the lower extremities reflex movement remained, with control over the sphincters. It was quite clear the opening of the abscess failed to relieve the brain, and Mr. Spanton therefore decided to trephine that part of the skull where it was presumed suppuration was going on within. On July 29th the operation was performed. After enlarging the existing opening in the scalp and cutting away the sloughy tendinous fascia, the anterior and upper portion of the left parietal bone was found more or less necrosed. The trephine was applied to the inner side of this, just beyond the longitudinal sinus, and as soon as the inner table of the skull was perforated and raised, about four ounces of thick, curdy, yellow pus welled up, and as soon as this was gently cleared away by washing with very weak carbolic lotion the dura mater came into view, looking rather more vascular and velvety than usual, but not in other respects altered. A small drainage-tube was left in the wound, and a few folds of sublimate gauze lightly applied over it. The following day (July 30th) he was better and quite conscious, able to answer questions intelligently, and expressed himself free from pain. Temperature 100·8° F. Wound discharging pus freely.

July 31st.—Improving; answering questions; taking food quite rationally, and making no complaint.

Aug. 2nd.—Not so well. Temperature 102·2°. Takes less notice, and does not reply when spoken to. Ordered an aperient and turpentine enema. From this time the patient gradually relapsed into the comatose condition which preceded the operation. The temperature rose to 103°, and death took place at 4 A.M. on Aug. 4th.

Necropsy, eighteen hours after death.—Beneath the occipital aponeurosis some pus was seen, reaching to the trephine opening. On removing the calvaria, the dura mater was more vascular than normal, and for an extent of about two inches around the opening was coated with puriform lymph. At one spot the membrane was thickened and velvety, and there had been apparently a communication through this with the interior surface of the dura mater; but the tissue was too friable to distinguish this with certainty. Beneath this membrane, and occupying a circumscribed area, was a mass of greenish soft lymph, which did not extend to the base nor across to the right hemisphere. The brain convo-

lutions beneath were much flattened and compressed, the ascending and middle frontal more especially. The brain substance otherwise was fairly healthy in appearance.

Remarks by Mr. SPANTON.—One of the first points which strike one in this case is the long interval which elapsed tween the primary injury and the subsequent abscess in connexion with the disease of the bone. Probably the irritation caused in December last was the immediate cause of the formation of the intra-cranial abscess. This history naturally rendered the course of treatment to be adopted more clear. Everything pointed, after the opening of the abscess under the scalp without any relief to the symptoms, to the existence of some localised mischief within, and this condition was verified as soon as the skull was opened. The immediate relief afforded to the patient was so great and so decided that it fully justified the course adopted, and may serve as an encouragement to the performance of a similar operation in cases of this kind. It would perhaps have been well to have opened the dura mater subsequently when the renewed symptoms of compression supervened, but my fear was that these might be caused by lymph effusion rather than pus, and that further interference would not have been of service. In the light of the post-mortem report, I am disposed to think an opening might have been made into the dura mater with advantage to the patient. In cases of this description we know that when compression is marked, death is almost certain soon to follow unless the pressure can be removed. The great difficulty appears to be in estimating the localisation of the abscess (or whatever it may be) within, and of trephining at the right spot in order to reach it. In this instance the indications were tolerably clear, and although the patient was not cured, immediate relief was afforded with so much ease and safety as to render the result, from a surgical point of view, both interesting and satisfactory.

JAMSETJI JIJIBHOY HOSPITAL, BOMBAY.

ANEURYSM OF THE POPLITEAL ARTERY CURED BY LIGATURE OF THE SUPERFICIAL FEMORAL ARTERY; REMARKS.

(Under the care of Surgeon-Major GRAY.)

A. S. P——, a Portuguese tailor, aged thirty-nine, was admitted into hospital on Nov. 14th, 1884. He was suffering from a pulsating swelling in the right popliteal space, of which he gave the following history. About six months ago he noticed that his right leg and foot were swollen. For this a native practitioner treated him with blisters to the inner side of the leg and ankle, but apparently without any result. He first perceived the popliteal tumour only a month previous to admission, but as it was then small and painless he took little notice of it. In a short time, however, it began to enlarge; and finding that it interfered with his posture whilst working at his trade, and caused him pain when he extended the leg, he came to hospital for treatment. The patient was a fairly well nourished man, looked some years older than his avowed age, and had the arcus senilis well marked. The heart sounds were rather weak, and the radials felt rigid. His appetite was good and the excretions were healthy. There was no history of syphilis or of local injury. The popliteal tumour was the size of an orange, and, from its feel and appearance and the usual signs, was readily diagnosed as an aneurysm. He was desired to remain in bed, and was kept under observation for nearly a month, partly for the purpose of improving his general health, as well as to afford the students sufficient opportunities of studying so rare and interesting a case. It may be noted here that aneurysm is a very infrequent affection amongst natives of India, on the Bombay side at least. The advisability or otherwise of attempting the cure of the aneurysm without operation was discussed, but Mr. Gray came to the conclusion, for reasons to be indicated presently, to adopt the treatment by ligature alone.

On Dec. 11th the patient was placed under chloroform and the superficial femoral was ligatured in Scarpa's triangle. There is nothing unusual to note about the operation, and no difficulties of any kind were experienced. The ligature employed was plain silk, well carbolised. The ends were cut short, the wound was dried, well dusted with iodoform, and closed with silver sutures. The dressing was a pad of dry boric cotton, covered with another of oakum, and a bandage firmly applied over all. The limb, from the toes upwards, was wrapped in a flannel bandage. The operation was well borne. Pulsation of course at once ceased in the tumour. The usual phenomena following successful ligature of the femoral were observed in the limb below the seat of operation. The patient had not a single unfavourable symptom. The dressing was removed for the first time on the 18th, a week after the operation, and the wound was found practically healed. Two days later the sutures were taken out, and union was seen to be complete. The tumour was much diminished in size, and was becoming firm; there was little or no uneasiness in the limb, and the circulation appeared to be quite re-established. The patient was discharged cured on Jan. 21st, 1885, the tumour being then no larger than a walnut.

Remarks by Mr. GRAY.—I am induced to report this case, not because there is anything very novel or unusual about it, but because it illustrates what I conceive to be the true principle of treatment in aneurysms situated in the limbs—namely, to proceed to ligature at once without wasting time in attempts at cure by the other means we are so familiar with. I am convinced that compression, flexion, manipulation, &c., have indirectly killed many a patient who would have recovered had the vessel simply been ligatured at the beginning. One or other of the first-mentioned modes of treatment are no doubt occasionally successful; but how frequently do we hear and read that they have failed, and that the ligature, employed as a last resort, has failed too. No wonder it fails, for the damage inflicted by the "tinkering process" (as one of my colleagues well termed it) which the unfortunate patient has first to endure renders it inevitable that it should. To my mind, ligature, instead of being the last resort, ought to be the first. The patient is then obviously in a better position to undergo the operation than he would be after having passed through a course of the other methods of treatment. Ligature is necessarily the most certain procedure: the aneurysm and the part where the ligature is applied are undisturbed; the patient has not been worried; while there is only the single operative risk. I believe that aneurysm cases are lost just as cases of strangulated hernia are, solely from the unwillingness or hesitation of the surgeon to adopt the bolder and more efficacious treatment at the outset. One other point I desire to draw attention to, and that is the employment of a silk ligature. If properly carbolised it is perfectly unirritating, and is, in my opinion, far more secure than any other kind of ligature material. Applied as described in the present case, I have used it in ligature of the common carotid with the best results. I have in other operations also frequently left silk buried in the tissues, and it has never caused the slightest trouble afterwards.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Syphilitic Ulcerative Tracheitis.—Internal Anthrax.—Diseases of the Circulatory System in Animals.—Endosteal Sarcoma.—Rhinolith.—Sarcoma of Skin.—Melanotic Carcinoma of Liver.—Multiple Sarcomata.

THE last ordinary meeting of the present year of this Society was held on Tuesday last, Dr. J. S. Bristowe, F.R.S., President, in the chair.

Mr. QUARRY SILCOCK showed a specimen of Syphilitic Ulcerative Tracheitis taken from a man aged thirty-two. There were numerous ulcers, which began below the vocal cords and extended even into the smallest bronchioles of both lungs. Catarrhal pneumonia led to death. The symptoms were those of chronic bronchitis. Treatment proved of no avail. The literature showed that many cases of the kind had been recorded. In reply to Dr. Bristowe, he said there was a gumma in the liver, and a well-marked history of syphilis.—Dr. GOODHART spoke of a still rarer condition in which ulceration occurred about the bifurcation of the trachea and led to perforation.—Dr. PERCY KIDD had seen syphilitic ulceration of the lower end of the trachea that caused narrowing of both bronchial tubes. In reply to Dr. Longhurst, Mr. Silcock said that the primary syphilis was contracted in 1877.—Dr. BRISTOWE remembered a case of extensive ulceration of the bronchi; the cartilages were eroded; it was probably syphilitic.

Mr. JOHN POLAND read notes of a case of Internal

Anthrax that occurred in a man aged twenty-three, a bargeman. On the day that his illness began he had been unloading Chinese hides. It was on the third day of his illness that the symptoms became severe, and death followed in fifteen hours. Delirium, drowsiness, red and raw tongue, peculiar smell with the breath, unconsciousness, with violent tetanic spasms of both arms and legs, which lasted a few minutes, pulse very rapid, temperature 106° at times, and Cheyne Stokes' respiration were the main symptoms. At the necropsy most extensive hæmorrhages were found in the pia mater beneath the arachnoid. In the mediastinum there was much yellow gelatinous serum; many ecchymoses were seen on both pleural surfaces; there were many infarctions in the lungs. The blood was nowhere clotted, but dark and fluid. There were four well-defined sloughing patches on the posterior wall of the stomach; the gastro-intestinal mucous membrane was swollen and œdematous. Many valvulæ conniventes showed large black sloughs, with an intensely congested area around them; the peritoneum over them was crimson-coloured, without any lymph. There was a slough in the centre of the left buttock. The skin over the right scapula showed a large ecchymosis, and other hæmorrhages were found in different parts of the skin. No characteristic bacilli could be detected anywhere; this was possibly owing to rapid decomposition, as Böllinger had pointed out that rapid decomposition destroyed the bacilli.

Mr. BLAND SUTTON read a paper on Diseases of the Circulatory Organs in Animals. The object of the communication was to give a brief general account of the various diseases which affect the organs of circulation in animals. Lesions of the heart and vessels were by no means of so frequent occurrence as in man—indeed, they were comparatively rare. 1. Inflammation of the pericardium arose from much the same causes, and presented similar characters to the same disease in man. It might arise from injuries, extension from pleurisy, simple or tubercular (perlsucht), parasites, and rheumatic fever (?). It was well known to veterinarians that horses suffered from rheumatic fever and that pericarditis was a frequent complication. Mr. Sutton was strongly of opinion that mammals which frequent the water, such as the hippopotamus, beaver, otter, and others suffered from this disease. It was in these animals that most of the uncomplicated cases of pericarditis occurred, and many days before death they lie about, abstain from entering the water, and when stirred manifest evident signs of pain. Of the different varieties of pericarditis, specimens were shown from a lizard and a peacock (parasitic); from a beaver, an antelope, and a monkey (rheumatic?); from a tiger, coatimondi, &c., arising from extension; and one specimen from a monkey where the pericardium was enveloped by a mass of lympho-sarcoma, giving rise to effusion into the pericardial cavity. It was interesting to note, according to Rayer, that Galen described the first case of pericardial effusion, and that it occurred in a monkey. The most interesting cases of traumatic pericarditis were chiefly found in cows. When cropping the grass these animals frequently took up foreign bodies, such as pieces of wire, needles, &c. These sharp bodies were checked by the psalterium, and diverted from their course; they might pierce the coats of the stomach, pass through the diaphragm, and enter the pericardium, where they gave rise to violent inflammation. This condition was well known to veterinarians. 2. The milk-white patch was very frequent in some birds and monkeys as a consequence of pressure from rickets, but the deformity induced by the latter disease led to a very serious condition of the heart, which might be best termed "flexion." If a young monkey who had died from rickets be frozen and vertically bisected, it would be found that the spinal column was in a condition of curvature (cat's back); this was often so severe that the sternum also became flexed, and a "knuckling" took place and squeezed the heart between the spine and sternum and flexed it. This led to atrophy of the wall of the right ventricle, and in some cases this was so marked that the outer boundary of the cavity only consisted of the visceral layer of the pericardium. The condition would probably be found in children if carefully looked for in extreme cases of rickets. 3. Affections of the valves, endocarditis, vegetations, and calcifications occurred occasionally, leading to incompetency, and its consequences. Specimens were exhibited from sheep, Coypu rats, deer, antelopes, buffalo, and a bear. 4. Diseases of the vessels were excessively rare, atheroma was found fairly often in the posterior aorta of the horse and verminous aneurysm occurred in probably 90 per cent. of adult asses; excluding these examples, diseases of the vessels were extremely rare. Among the very great number of wild animals examined, twice only was atheroma detected—in a buffalo and in a zebu, the sacred ox of India. As a consequence of this, true aneurysm was very rare, and Mr. Sutton only knew of about three genuine cases in wild animals. Verminous aneurysm, although so common in asses and fairly frequent in horses, was yet confined to the domesticated animals; he had not found it in any of the wild members of the group. Fortunately, the disease did not affect man, and this explained the little interest it excited in the medical profession, although the presence of these worms in the tunic of an artery was known to Ruysch as far back as 1665. 6. The last affection to notice was arterio-capillary fibrosis, which affected the medium-sized arteries of the horse and cattle, and, as in man, was associated with chronic interstitial nephritis. Perhaps the most interesting fact in this communication was that which indicated the rarity of atheroma in animals. It had been noted previously by writers, but few had adduced any numbers large enough to make a generalisation. The infrequency of the disease may be due to the absence of alcoholism, syphilis, and arterial strain.—Mr. SHATTOCK said there was a specimen of a verminous aneurysm in a dog in the museum of University College.—Mr. EVE had seen an aneurysm in the mesenteric artery of a horse. If Mr. Sutton's horses only came from the Zoological Gardens, the slight amount of vascular disease might be accounted for.—Mr. HARRISON CRIPPS had seen aneurysms in hounds, and the celebrated greyhound, Master McGrath, died from aneurysm of the aorta.—Mr. J. B. SUTTON said that sometimes an aneurysm on the mesenteric artery of a horse led to erosion of vertebræ and fracture of the spine. His specimens were drawn from he most varied sources.

Mr. D'ARCY POWER showed a Central Sarcoma of the Shaft of the Femur. Pain had been felt in the limb for a period of four months, and an oval tumour could be felt in the long axis of the thigh. The bone broke whilst the patient, a young man of twenty-eight, was turning in bed. Amputation was performed, and the patient made a good recovery. The specimen consisted of a portion of the shaft of the femur, which was excavated, but with hardly any expansion, until only a thin shell of bone was left, except on the external surface, where the bone had been thickened by a new deposit in such a manner as to form an oval swelling. The new growth was a tapering mass, five inches in length, and an inch and a half in diameter at its thickest portion. It was very loosely inserted into the shaft of the femur. Microscopically, it was a round-celled sarcoma, which appeared to be undergoing calcification. The locality, the limitation, and the slight amount of expansion which the femur had undergone, compared with the large amount of absorption which had taken place in the bone, were the most important features.

Mr. STOKER showed a Rhinolith composed of phosphate of lime and fashioned in concentric laminæ. It was taken from a female patient aged about thirty-five. The nucleus was probably composed of blood-clot. Chiari had placed forty-two cases on record. His was probably the forty-fifth.—Mr. CLUTTON had reported a similar case in the Pathological Transactions two years ago. A central cavity containing a brown powder was the nucleus, and was probably derived from the blood.

Mr. SWINFORD EDWARDS showed a specimen of Round-celled Sarcoma of the Skin; it was taken from a male patient aged forty-five. Ten months before admission a small pimple appeared on the inner aspect of the right thigh; ulceration followed, and the disease spread widely. On admission a large ulcer was seen over the inner part of the upper two-thirds of the right thigh; the skin around was pigmented; the subadjacent tissues indurated; several nodules surrounded the ulcer. A few papular spots were to be seen over the hypogastric and right iliac regions. The large ulcer had evidently formed by the confluence and ulceration of several nodules. After some days a typhoid state developed, with slight albuminuria. There had been fever ranging between 99° and 103·4°, but 105·6° just before death. At the necropsy the lower parts of the colon were dilated; the sigmoid flexure was constricted, probably congenitally. There was no enlargement of the lumbar glands. Köbner in the *Archiv für Dermatologie und Syphilis*, 1869, recorded two cases of spindle-celled sarcoma of the skin and subcutaneous tissue. Hardaway had reported a case of

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This area was explored, and much fetid pus and flatus (which indicated some communication with the intestines) escaped. He used iodine water to thoroughly wash out the abscess cavity. Improvement was rapid, and convalescence fully established in ten days. He would advise that an exploratory incision should be made in such cases, either in the semilunar line or in the position chosen in the case above narrated.—Mr. CHARTERS J. SYMONDS spoke of the suddenness of onset of many cases of typhlitis and peritonitis. He considered that the cases narrated ought to give great confidence, so that surgeons would now have less hesitation in exploratory abdominal operations. Of twenty-three fatal cases of perityphlitis, seventeen had some form of concretion in the vermiform appendix, but he had not found a foreign body in one. A grain of wheat had been found in one case by Dr. Hale White, and this made two cases of foreign bodies with that referred to by Mr. Morrant Baker.—Mr. A. E. BARKER said that cases like those related ought to encourage the surgeon to operate in the face of acute peritonitis. He narrated the case of a young man whose illness began with symptoms of intestinal obstruction. When first seen there were evident signs of peritonitis. Mr. Barker made an incision through the linea alba, and discovered what had probably been a volvulus situated at the upper end of the ileum; a foot in length of the ileum was congested, ecchymosed, and dilated. He examined all the small intestines, and also the cæcum and vermiform appendix. The peritoneal cavity was thoroughly cleansed, and the intestines freed from inflammatory material and returned. The patient made an excellent recovery. An inflamed suppurating peritoneum ought, he concluded, to be treated as an ordinary abscess.—Dr. BARLOW drew attention to the medical after-treatment of the case. The patient was fed almost entirely by the rectum for the first weeks after the operation. Rectal alimentation was not difficult to carry out for a day or so, but if continued longer the rectum became intolerant, especially of ordinary milk and foods; it tolerated nutrient enemata much longer, but even then cases differed much, and the personal equation had always to be taken into account. For this patient Mr. Gerrard, the dispenser and pharmacist at University Hospital, had prepared suppositories of peptonised meat extract, and also others of mixed meat and milk. A suppository was introduced every three hours, and the rectum did not become intolerant. The patient was rather difficult to manage owing to his irritability. The thirst was quenched by the administration of warm enemata of about three-quarters of a pint at a time. He was allowed later on to chew pieces of underdone meat and swallow only the juice; this proved effective in moistening and cleaning the dry brown tongue from which the patient at times suffered.—Mr. R. J. GODLEE, in reply, said that the position of the incision pointed out by Mr. Bryant was important, and the red spot that existed in his (Mr. Godlee's) case would have proved a guide to the abscess, and so have avoided the opening of the general peritoneum. The position of the pain in inflammation about the cæcum was not unfrequently in the left side of the abdomen.—Mr. JONATHAN HUTCHINSON had understood that the chief point of the paper was to show that the general peritoneum should be opened and thoroughly cleansed, whereas the distinctive feature of Mr. Bryant's and other cases was the opening of a localised abscess shut off from the general cavity of the peritoneum. The two classes of case seemed very different to him. He had had considerable experience of the latter class, but not of the former. Dr. Barlow's and Mr. Godlee's case was a triumphant success both medically and surgically.

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He mentioned the seat of the pain, as this was frequently misleading to the surgeon. An incision was made between the right anterior superior spine of the ileum and the umbilicus and an abscess opened, which proved to be bounded by matted coils of intestine; the operation brought relief that lasted four weeks, when a return of the symptoms ensued, and was followed in a few days by death. At the necropsy a concretion of hardened fæcal matter was found in the vermiform appendix; embedded in this was a needle, whose point projected free into the peritoneum and constituted a permanent source of irritation.—Mr. T. BRYANT related the case of a girl aged ten years who had suffered from an attack of cæcal inflammation and recovered; a relapse ensued, with the following symptoms: pain, distension, vomiting, fever, and constipation of six days' duration. About the crest of the right ilium a sensation of fluctuation was felt. This area was explored, and much fetid pus and flatus (which indicated some communication with the intestines) escaped. He used iodine water to thoroughly wash out the abscess cavity. Improvement was rapid, and convalescence fully established in ten days. He would advise that an exploratory incision should be made in such cases, either in the semilunar line or in the position chosen in the case above narrated.—Mr. CHARTERS J. SYMONDS spoke of the suddenness of onset of many cases of typhlitis and peritonitis. He considered that the cases narrated ought to give great confidence, so that surgeons would now have less hesitation in exploratory abdominal operations. Of twenty-three fatal cases of perityphlitis, seventeen had some form of concretion in the vermiform appendix, but he had not found a foreign body in one. A grain of wheat had been found in one case by Dr. Hale White, and this made two cases of foreign bodies with that referred to by Mr. Morrant Baker.—Mr. A. E. BARKER said that cases like those related ought to encourage the surgeon to operate in the face of acute peritonitis. He narrated the case of a young man whose illness began with symptoms of intestinal obstruction. When first seen there were evident signs of peritonitis. Mr. Barker made an incision through the linea alba, and discovered what had probably been a volvulus situated at the upper end of the ileum; a foot in length of the ileum was congested, ecchymosed, and dilated. He examined all the small intestines, and also the cæcum and vermiform appendix. The peritoneal cavity was thoroughly cleansed, and the intestines freed from inflammatory material and returned. The patient made an excellent recovery. An inflamed suppurating peritoneum ought, he concluded, to be treated as an ordinary abscess.—Dr. BARLOW drew attention to the medical after-treatment of the case. The patient was fed almost entirely by the rectum for the first weeks after the operation. Rectal alimentation was not difficult to carry out for a day or so, but if continued longer the rectum became intolerant, especially of ordinary milk and foods; it tolerated nutrient enemata much longer, but even then cases differed much, and the personal equation had always to be taken into account. For this patient Mr. Gerrard, the dispenser and pharmacist at University Hospital, had prepared suppositories of peptonised meat extract, and also others of mixed meat and milk. A suppository was introduced every three hours, and the rectum did not become intolerant. The patient was rather difficult to manage owing to his irritability. The thirst was quenched by the administration of warm enemata of about three-quarters of a pint at a time. He was allowed later on to chew pieces of underdone meat and swallow only the juice; this proved effective in moistening and cleaning the dry brown tongue from which the patient at times suffered.—Mr. R. J. GODLEE, in reply, said that the position of the incision pointed out by Mr. Bryant was important, and the red spot that existed in his (Mr. Godlee's) case would have proved a guide to the abscess, and so have avoided the opening of the general peritoneum. The position of the pain in inflammation about the cæcum was not unfrequently in the left side of the abdomen.—Mr. JONATHAN HUTCHINSON had understood that the chief point of the paper was to show that the general peritoneum should be opened and thoroughly cleansed, whereas the distinctive feature of Mr. Bryant's and other cases was the opening of a localised abscess shut off from the general cavity of the peritoneum. The two classes of case seemed very different to him. He had had considerable experience of the latter class, but not of the former. Dr. Barlow's and Mr. Godlee's case was a triumphant success both medically and surgically.

The following living specimens were exhibited:—Mr. Charles Stonham: Case of Recovery with but little Deformity after removal of the whole Tongue and Anterior

Part of the Lower Jaw for Epithelioma. Mr. R. W. Parker: Congenital Absence of Radius. Dr. Stephen Mackenzie: (1) Case of Symmetrical Morphœa; (2) Leprosy-like Syphilide. Dr. T. D. Savill: Case of Myxœdema.

MEDICAL SOCIETY OF LONDON.

The Treatment of Profuse Hæmoptysis.

AN ordinary meeting of this Society was held on Monday last, Dr. W. M. Ord, President, in the chair.

Dr. SAMUEL WEST read a paper on the Treatment of Profuse Hæmoptysis. The following principles were discussed. 1. Rest of the body generally and of the diseased part. Many of the indications under this heading were to be met by the use of opium. 2. Hæmostatics: (*a*) Topical astringents; (*b*) vascular constringents. Topical astringents could not be applied to the bleeding part of the lung, and if they acted at all it must be only as vascular constringents. The belief as to the use of vascular constringents in pulmonary hæmorrhage was probably based upon an incorrect theory of the pathology, and reasons were adduced why they could not be expected to do good. Ergot was of doubtful value, for it constricted vessels smaller than those from which the hæmorrhage came. The risk of death in profuse hæmoptysis was more from suffocation than mere loss of blood. Moreover, profuse hæmorrhage tended to bring about of itself the conditions most favourable to its cessation. An attempt might be made to imitate these conditions in treatment. When a vessel was divided, hæmorrage ceased (1) from contraction of the vessel, and (2) from clotting of the blood, aided by the great fall of blood-pressure which severe hæmorrhage induced. In hæmoptysis the vessel was so diseased that it could not contract at the diseased spot. There was no drug which by internal administration could increase the clotting power of the blood. The effect upon the blood-pressure could be imitated in various ways:—First, by free bloodletting from artery or vein. If bloodletting be inapplicable, the same end might be aimed at by detaining the blood in some part of the body other than the diseased part. This could be done by mechanical means, as by the use of Junod's boot, or by dilating some of the great vascular systems of the body and making them act as temporary reservoirs for the blood. The abdominal reservoir might be used temporarily by purgation; the cutaneous vessels by counter-irritation, or possibly by pilocarpine and nitrite of amyl; these drugs dilate the vessels throughout the whole body, and might possibly be of great service. The blood-pressure might be further influenced through the heart—by means of cardiac depressants, of which antimony is the most reliable: by nauseant emetics, of which ipecacuanha was much vaunted by Trousseau. Lastly, dieting was of great importance. The principle of absolute rest with a restricted diet, which is the essence of Tuffnell's treatment for aneurysm of the thorax and abdomen, was equally applicable and useful in pulmonary hæmoptysis.—Dr. SYMES THOMPSON considered that in a great number of cases good resulted from free hæmorrhage. He did not believe in the use of astringents such as gallic acid, copper, and lead salts. Careful management with free purgation was far better treatment. Opium was useful when restlessness and excitement existed. Clinical experience went to show that even bleeding from aneurysms in the pulmonary artery was controllable.—Dr. THOROWGOOD thought opium was most valuable, but had not much faith in ergot and digitalis. The liver was frequently congested, and so he agreed with Dr. Thompson that saline purgatives were of much value. He believed that the spinal ice-bag to the neck increased hæmoptysis. Oil of turpentine was very useful.—Dr. C. H. ROUTH spoke of the variability of action of ergot; he had seen it do much good. He suggested that the subcutaneous injection of nitrite of amyl might prove of much value. Turpentine was the most certain remedy in cases of hæmorrhage.—Dr. T. H. GREEN said that, owing to the natural tendency to the arrest of hæmorrhage, it was very difficult to say how much hæmostasis was due to drugs. He thought that profuse hæmoptysis need not necessarily come from an aneurysm in a pulmonary cavity. The general management of the patient should consist of a cool room with abundance of fresh air, and warm clothing to keep the cutaneous vessels full; the patient should take as little liquid as possible, and alcohol should be excluded. Purgatives were very important. The cough should be restrained. The quiet of the patient was of the greatest moment, and opium was the best drug. Ergot was of use, in his opinion; he believed that it lowered the blood-pressure whilst contracting the arterioles.—Dr. D. DREWITT said opium was certainly hæmostatic.—Dr. E. S. THOMPSON said that Dr. Fitzgerald of Victoria, New South Wales, had employed the electro-cautery in hæmoptysis.—Dr. JOHN GALE of Massachusetts had published a paper in 1847 in the *Boston Medical and Surgical Journal* on the use of ergot in all cases of hæmorrhage. He never knew it to do harm. Opium and sugar of lead were sometimes given with it. In his hands it had proved most successful.—Dr. ANGEL MONEY contrasted the fatal cases with those which were not fatal, and argued that the rapidity of the hæmorrhage, and not the quantity of blood lost, was the most important element to consider.—Dr. T. D. ACLAND spoke of the artificial production of pneumothorax as a means of arresting profuse hæmoptysis. He did not think that this serious measure was of real value.—Dr. KINGSTON FOWLER had made a necropsy on Dr. Cayley's case of artificial production of pneumothorax (Clinical Society's Transactions, vol. xviii.). At the site of most advanced disease there was usually adhesion of the two layers of the pleura, and there was usually also the site of hæmorrhage. This being so, collapse of lung was impossible and the operation useless. The operation could but rarely be of use. Aneurysms may form in acute cavities, as he had seen in the case of a child aged eighteen months. Dr. ORD thought there was an infinity of suggestion in Dr. West's paper. The great disadvantage that attended the use of artificial hæmostatics was dilated upon. Saline purgatives removed a very important cause of arterial tension. As a reason against astringents, he argued that they increased constipation and arterial tension. Ergot did seem to him to be of some value in some cases of hæmoptysis; it probably acted by diminishing general arterial pressure. He had observed after its use a regularly successive diminution in the size of abdominal aneurysms; it gave comfort also to the patient.—Dr. S. WEST replied.

OPHTHALMOLOGICAL SOCIETY.

Diabetic Retinitis.—Pemphigus of Conjunctiva.—Atrophy of Optic Chiasma from Pressure of a Tumour.—Double Optic Neuritis after a Fall.—Neuro-paralytic Ophthalmia.—Syphilitic Retinitis.

AN ordinary meeting of this Society was held on the 10th inst., Mr. Jonathan Hutchinson, F.R.S., President, in the chair.

Mr. NETTLESHIP showed a living specimen and a drawing of a case of Diabetic Retinitis. A large number of patches and spots of white deposit were scattered over the central part of the fundus. They differed in position, mode of arrangement, and in colour from those of albuminuric retinitis. The yellow spot of the right eye was occupied by a dense irregular mass of the same deposit. There was no tendency to a spoke-like radiation around the yellow spot. The general tint of the spots was more yellow than those of albuminuric retinitis. The case was that of a man aged fifty, with cataract of the left eye. The appearances did not alter from January till April, 1885. There was no albuminuria or heart disease.—Dr. S. MACKENZIE had seen a few cases of diabetic retinitis, and had made a post-mortem examination on one. Lebert had collected many cases. Some had doubtless been passed over as cases of albuminuric retinitis. There was no increase of arterial tension, no cardiac hypertrophy, and no disease of the kidneys in these cases. He had seen neuro-retinitis in anæmia and in tumour of the brain, and also in lead poisoning, in which there was nothing that could distinguish it from albuminuric retinitis. He agreed with Lebert that hæmorrhages into the vitreous, which obscured for a time the changes in the ocular fundus, were more characteristic of diabetic retinitis.—Mr. NETTLESHIP argued that hæmorrhages into the vitreous body were more liable to complicate diabetic retinitis; but the retinal vessels and optic disc were not affected as they were in albuminuric retinitis, and, moreover, the patches of pigment in the last-named affection constituted another difference between diabetic and albuminuric retinitis.—Dr. SAMUEL WEST thought the case shown differed very markedly from albuminuric retinitis;

some of the patches looked like atrophy of the choroid.—Mr. ADAMS FROST said the case suggested strongly to him a late stage of albuminuric retinitis.—Mr. MARCUS GUNN was of opinion that late stages of albuminuric retinitis were rare, for when retinitis developed the patients usually succumbed from the kidney disease.—Mr. MCHARDY considered that there were cases of glycosuria associated with albuminuria that were overlooked.

Mr. E. NETTLESHIP showed a patient from whose eye a chip of iron had been removed with the electro-magnet. No reaction occurred, but the retina became detached, and it was therefore very doubtful whether the eye would have been useful.

Mr. W. H. JESSOP showed a card specimen of Retinal Detachment, and Mr. H. E. JULER a Gumma of the Iris.

Dr. W. A. BRAILEY showed a male patient; aged seventy, with Hæmorrhagic Glaucoma unaccompanied by any increase of tension. One eye was glaucomatous, and the other eye had most of the symptoms of glaucoma. There was no albuminuria or cardiac hypertrophy.

Dr. BRAILEY showed again the case of Retinal Detachment that had been exhibited at the last meeting (*vide* THE LANCET, p. 995). A scleral puncture had been performed and the swelling had disappeared; three weeks had elapsed since the puncture, and there was now nothing to be seen.

Mr. W. H. JESSOP showed a drawing of a large Retinal Hæmorrhage situate near the yellow spot, semicircular in shape, the upper margin being pefectly straight.

Mr. ANDERSON CRITCHETT and Mr. JULER showed two patients the subjects of Essential Shrinking of the Conjunctiva (so-called Pemphigus of the Conjunctiva). One case—that of a farmer, aged fifty-three—was of special interest, as it had been under observation from its commencement. He came under Dr. Felix Semon's care in September, 1884, on account of an affection of the right nostril, which resembled syphilitic perichondritis and periostitis. In June, 1885, he was transferred to Mr. Nettleship's care, on account of epiphora and conjunctivitis, with partial obliteration of the lower cul-de-sac. The conjunctiva of the upper lid was marked by scars parallel to the free border. The affection went progressively from bad to worse in the right eye; and in August, 1885, slight conjunctivitis of the left eye was noticed. The right eye had finally become almost blind. Both eyelids were thickened, and partly adherent to the globe. Both culs-de-sac were obliterated; and, though the globe moved pretty freely, the lids moved with it. The lashes were inverted, and the cornea opaque and vascular. Similar shrinking of the conjunctiva had commenced in the left eye; the lashes were turning inwards, and the culs-de-sac were so much diminished that the lids could not be everted without difficulty. The conjunctiva was red and velvety, but showed no scars. Vision was still fairly good. The man gave a distinct history of syphilis ten years earlier. No sign of pemphigus could be discovered on the body, though the man stated that he had seen bullæ on his palate. Mr. Critchett expressed the opinion that the condition had no relation to pemphigus, but was an essential shrinking of the conjunctiva, similar to that described by Graefe (*Arch. Oph.*, vol. xxiv.) and Bäumler (*Monatsblätter f. Aug.*, August, 1885).—Dr. FELIX SEMON had watched the progress of the case. In the nostrils obstruction by scabs and hæmorrhages were the chief phenomena, and nothing more than superficial ulceration of the mucous membrane over the turbinate bones could be found after repeated examination; there was no necrosis of bone at any time. And when first seen there was no affection of the eye, throat, or skin. The history gave evidence of syphilis, but mercury and iodide of potassium failed to relieve the nasal disease. A few weeks after taking the iodide of potassium an erysipelatoid condition of the face developed, together with a bullous eruption on the lower lip. The notion of chronic glanders suggested itself; there was but slight foundation for this diagnosis. Later on a scaly eruption on the palms made its appearance, and also serpiginous ulcers in the mouth.—Mr. LANG referred to some cases of pemphigus of the conjunctiva in a paper by Schweigger. The seat of the primary affection was probably different in different cases: in some the conjunctiva might be first affected; in others the nose, or the throat, or the skin. In the majority of cases there was no specific history; the patients ranged in age between fourteen months and seventy-five years.—Mr. H. E. JULER said there appeared to be two classes of cases: in one the affection was localised to the conjunctiva, and there was nothing to lead one to regard it as pemphigus; in the other set of cases, like those described by Steffan and Schweigger, there was general pemphigus and a universal shrinking of the conjunctiva.—Mr. LANG said that only three times had an actual vesicle been seen on the conjunctiva.—Mr. NETTLESHIP remarked that there was considerable thickening of the eyelids, and in this respect it differed from cutaneous pemphigus, in which the skin was not hypertrophied.—Mr. MALCOLM MORRIS said that the use of the word "pemphigus" was to denote a distinct clinical entity. In two cases of the conjunctival disease that he had seen there was a syphilitic history, and he looked on these changes as late syphilitic manifestations; they took a considerable time to develop—as long as eighteen months,—whereas pemphigus ran a course much more rapid than that. In pemphigus there was no hypertrophy of the connective tissue; in these cases a distinct new growth or actual thickening developed, and gave more resemblance to a slow process of scleroderma or rhinoscleroma than to anything of a pemphigoid character.

Mr. QUARRY SILCOCK showed a specimen of Partial Atrophy, with elongation of the optic chiasma by pressure of a sarcomatous tumour springing from the pituitary fossa. The patient was a female aged twenty-five, who died in a state of coma from acute tubercular meningitis. There was apparently no defect of vision. The optic nerves were inflamed, but there was no evidence of degeneration. Dr. SAMUEL WEST related a case of optic neuritis in a girl, aged eleven, who was admitted into hospital with the history that one month before she had fallen and struck her head, that two days later she had a fit, and subsequently, on several occasions, short attacks of unconsciousness, and that she had gradually grown feebler. There was no paralysis and no objective symptoms beyond double optic neuritis; vision was good, Jaeger 1 being read with facility. Under treatment by iodide of potassium and mercury for about ten weeks, the optic neuritis finally completely disappeared. There was no evident hypermetropia.—Mr. WARREN TAY had seen cases of optic neuritis with perfect preservation of vision that had come on as the result of slight injury to the head.—In reply to Dr. Stephen Mackenzie, Dr. WEST said the patient was brought to him for a "fit"; he could not say positively what the state of the knee-jerks was.—Mr. H. E. JULER pointed out that eyes which had errors of refraction were more prone than emmetropic eyes to develop optic neuritis as the result of injury or disease.

Mr. W. H. JESSOP showed some tracings of the fields of vision in a case of Diphtheritic Paralysis in a female child. There was marked limitation, which disappeared as the patient improved; paralysis of accommodation was present, and the knee-jerks were lost.—Mr. LANG said that he had not observed any limitation of the fields of vision in diphtheritic paralysis; nor had Uhthoff of Berlin, who had examined the fields of vision in cases of ophthalmoplegia, in which there was loss of the power of convergence, as well as of accommodation. These facts pointed to the central origin of the disease.

Dr. BRAILEY read for Mr. CHARLES HIGGENS the history of a case of Paralysis of the Fifth Nerve with Corneal Ulceration. The patient was a woman aged nineteen, who had a large central corneal ulcer, small superficial ulcers on the skin of the temple and forehead, and total anæsthesia of the conjunctiva, and all parts supplied by the right fifth nerve; wasting of the muscles of mastication occurred later. The eye was brought under the influence of atropine, and carefully covered; the patient was sent to the seaside, and the ulcers of the skin healed within six weeks; the corneal ulcer healed in eight months, leaving a dense leucoma; the anæsthesia still persisted, and there was some ulceration of the nostril and styes on both eyelids; but the patient was otherwise in good health, and the eye on the affected side appeared to be, with the exception of the leucoma, quite normal.

Dr. BRAILEY showed a case of Retinitis in a girl aged twelve, the subject of congenital specific disease, in whose left eye were numerous white, opaque, striated retinal patches very similar in appearance to opaque nerve fibres. Since she was first seen she had had albuminuria. He regarded the patches as due to retinitis, probably of renal origin; in addition, there were a few minute spots of choroiditis disseminata. The vision of both eyes was defective, the left more than the right; each was hypermetropic about 7 D., and astigmatic 1·5 D.; glasses, however, produced no material improvement.

There was long-standing extensive suppuration of the bones of the left forearm and of both tibiæ; no visceral enlargements could be detected. The case was accompanied by an ophthalmoscopic drawing.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Dec. 2nd, J. B. Potter, M.D., F.R.C.P., President, in the chair.

The following specimens were shown:—Dr. Lewers: Pyosalpinx. Dr. John Williams: Corroding Ulcer of Uterus, with microscopical sections. Dr. Walter Griffith (for Mr. Strugnell): Early Extra-uterine Pregnancy. Dr. Campbell Pope: Pregnancy in Bihorned Uterus. Dr. Galabin (for Dr. Lewis Jones): Double Monster.

Dr. ARNOLD THOMPSON (Ampthill) narrated a case of Protracted Pregnancy. The patient was a delicate woman not long married, who had had a miscarriage previously, occasioned by a shock. After this menstruation recurred, and the last period ended June, 1884. Her husband left home a week after, and returned on Monday, June 16th, for one night only, on which coitus took place. He left home the next morning, and was away for four months. Soon after the husband's departure signs of pregnancy appeared. Delivery took place April 13th, 1885, 317 days after the end of the last menstruation, or 301 days from the last coitus. The dates were absolutely certain. The child was not weighed or measured; it was a female, and appeared of full average size and weight. According to Prussian law the child would be legitimate; according to Scottish law and the French code it would be illegitimate; in England its legitimacy would be determined by circumstances.—Dr. GRAILY HEWITT inquired whether anything was known as to the duration of the menstrual interval in this case. The late Dr. Tyler Smith was of opinion that a relation subsisted between the duration of pregnancy and the menstrual interval. In Casper's work it was stated that Cederschjold had observed cases of excessive prolongation of pregnancy in cases where the menstrual interval was unusually extended.

The next paper was on the Inflammations of Lupus of the Pudendum by Dr. MATTHEWS DUNCAN, with Histological Observations and Remarks on Lupus by Dr. THIN. In this paper the peculiar inflammations occurring in the course of the disease are described, as well as the strictures which also occur. These conditions are contrasted with such as occur in connexion with malignant disease. Their treatment is also entered upon. The histology of the disease has already been briefly described by Dr. Thin, and will be found in the report of the October meeting of the Society.—Dr. HERMAN had seen two cases of stricture of the female urethra due to general fibrous thickening of the wall of the canal. In neither of these was there any evidence of lupus or history of any inflammation or ulceration. Dr. Fleetwood Churchill, in his work on "Diseases of Women," described under the title of "Spasmodic Stricture" two cases which seemed to Dr. Herman to be of the same class.—Dr. MATTHEWS DUNCAN said that the subject was far from being exhausted. He entertained some hope of entering upon and laying before the Society the bibliography of the disease, its nomenclature, and, still more important, its alliances.

Dr. H. ROXBURGH FULLER then brought under notice a case of Spurious Labour. The patient, a short spare woman aged thirty-one, became pregnant, as she supposed, for the fifth time in 1882. She had been married over eleven years, had borne four children, and had never miscarried. Her last child was born on August 31st, 1881, and she suckled it until August 3rd, 1882. On that day she noticed a pink discharge "like a birth-show," and felt the movements of a child. She at once weaned her child. She had never conceived before while suckling, and she had suffered from morning sickness since April, but did not think herself pregnant till she "quickened." From this date the sickness ceased. On cross-examination it was found that the sickness was irregular and occurred at any time of day, also that the catamenia, absent from the birth of the child till the "show" in August, returned naturally in September, scantily ten days later, and at irregular intervals in October and November. In December ordinary morning sickness began, and persisted till labour commenced. In December the catamenia were absent. On January 1st, 1883, labour began with "niggling pains in the stomach and thighs, which continued during the 2nd and 3rd, but on the 4th true labour came on, the pains becoming strong, frequent, and forcing; the "waters" soon broke, and she sent to St. George's Hospital for assistance. Nine hours later the student in attendance sent for Dr. Fuller, as resident obstetric, reporting that the labour was making no progress, and that the patient was becoming exhausted. The patient remarked to Dr. Fuller that she thought it was a cross-birth, as she missed the pressure of the child's head. The author found all signs of advanced pregnancy absent. The pains occurred every three to five minutes, and the bearing-down forced the small cervix uteri nearly to the vaginal outlet, while at the same time urine escaped. The pains were typical of the second stage of labour. Dr. Champneys was called to the case, and diagnosed a pregnancy of six weeks, which proved to be correct. He succeeded in convincing her that she was not pregnant, her belief in her pregnancy having been unshaken till then. Dr. Fuller remarks on the belief in pregnancy, which persisted in the absence of all signs and of all symptoms except "fœtal movements"; and on the occurrence of true conception during the progress of the case, which was not disturbed by the "labour." He also alluded to the two classes of spurious pregnancy (1) in which all symptoms except fœtal movements are absent, and (2) the class in which the mammary and other sympathetic signs are more or less marked. The latter class, as Harvey pointed out, is noticed in animals.—Dr. PHILIP JONES referred to a case in which a patient suffered from morning sickness with cessation of menstruation for four months and enlargement of the abdomen. At the end of the seventh month a severe attack of bronchitis occurred, and a week later the abdomen began to diminish, and at the end of three weeks all signs and symptoms of pregnancy disappeared and the menses returned.—Dr. GERVIS alluded to two cases of spurious labour, in one of which an elongated cervix was mistaken by the attendant for the foot of a child; in the other the attendant had diagnosed a head presentation, the uterus was quite small, though the pains were active.—Dr. CAMPBELL POPE related a case in which a patient suffered from morning sickness, felt movements, increased in size, and had strong labour pains at the supposed full term. The uterus was not enlarged. She was not anxious to have a child, and was with difficulty persuaded that she was not in labour.—Dr. ROUTH said that most obstetricians had seen cases of spurious labour. He referred to two cases, in one of which the pains were regular, strong, and characteristic in locality and regularity; during the pains the uterus was nearly forced out, and the os seemed to give slightly to the finger. The pains continued for several hours. It was thought that a miscarriage might be impending, but as no progress was made a full dose of opium was given and the "labour" ceased. Both patients were hysterical.—Dr. HERMAN said that it was quite certain that spurious pregnancy was not simply a hysterical affection (as Dr. Routh said), for it occurred in the lower animals. The question of the labour pains which occurred was interesting, for the uterus had been seen to contract in cases treated by abdominal section, and it was reasonable to suppose that these pains were of this nature. Cases related this evening showed that in labour pains occurring in spurious labour there were uterine contractions.—Dr. CHAMPNEYS said that well-recorded cases of spurious labour were very rare, and Dr. Fuller's seemed to him the best yet recorded. The patient, who was the mother of several children, did not seem at all hysterical, but merely to be possessed by a false idea. An offer on his part to adopt the child if born within four months brought the pains to a standstill; he dared not name a longer time on account of the signs of early pregnancy. In this case (as in Dr. Gervis's) a malpresentation (in this instance a face presentation) was diagnosed by the first attendant. He thought that evidence as to true uterine contractions must be entertained with great caution, and it must be remembered that the true uterine contractions in extra-uterine pregnancy, referred to by Dr. Herman, concern a uterus which, if not truly pregnant, is that of a pregnant woman.—Dr. GALABIN related a case illustrative of the fact that spurious labour might be misleading to the diagnosis. In this case pregnancy seemed to have been protracted some weeks beyond term, and fœtal movements were said to have ceased. There was a firm irregular abdominal tumour extending into the pelvis behind, and pushing the uterus forwards and upwards. The part

behind the uterus was suspected to be the fœtal head, and Dr. Braxton Hicks and he diagnosed extra-uterine gestation. The case had been sent up as one of extra-uterine gestation or missed labour. One evening labour pains came on; the vagina was relaxed; there was a quantity of glairy secretion; the os was within reach, and appeared to be slightly dilating. Exploration of the uterus found it empty. The diagnosis was thought to be rather confirmed by the spurious labour. As matters were quiescent the patient was sent home. Three years later she returned, stating that the tumour had at first diminished, then grown. Part of it fluctuated; the sound mass behind the cervix remained. It was thought that fluid might have been effused into the gestation sac, or that it might be complicated by ovarian tumour. Symptoms of collapse having suddenly set in, he performed abdominal section, and removed two unruptured ovarian tumours; recovery followed.

EPIDEMIOLOGICAL SOCIETY.

Report of the German Vaccination Commission.

AT a meeting of this Society held on Dec. 9th, Dr. Walter Dickson, President, in the chair,

Dr. E. J. EDWARDES read a paper on the Report of the German Vaccination Commission. This Commission was appointed by the German Government to make a physiological and pathological inquiry into the present aspect of vaccination, especially as regards any attendant evils; to frame rules for the eventual introduction of animal vaccine lymph into general use in public vaccinations; to draw up a scheme for the institution of an effective supervision of public vaccination and to arrange for an Imperial statistic of the small-pox mortality. The Commission's "Conclusions on the present status of the vaccination question, viewed phrenologically and pathologically," were answers to eight questions, and propounded by the Imperial Board of Health. They are as follows:—1. With rare exceptions, one survived attack of small-pox confers immunity against future attacks. 2. Vaccination exerts a similar protection. 3. The duration of the protection afforded by vaccination varies within wide limits, but is about ten years on the average. 4. At least two well-developed vesicles are necessary to ensure efficient protection. 5. Revaccination is necessary ten years after primary vaccination. 6. A well-vaccinated condition of the community increases the relative protection which the individual has acquired against small-pox, and thus vaccination is useful, not only individually, but generally useful against small-pox. 7. Vaccination may, under certain circumstances, be injurious to the health. In the case of human lymph, the danger of transferring syphilis, although extremely slight, cannot be entirely excluded. Any other injurious effects are apparently due only to accidental wound diseases. All these dangers may, by precautions in the performance of vaccination, be reduced to such a minimum that the benefits of vaccination infinitely outweigh any possible injurious effects. 8. Since the introduction of vaccination no scientifically provable increase of any especial disease, or of the general mortality, has occurred, such as might be regarded as a consequence of vaccination. The statistics brought forward by the Imperial Board of Health to show the effect of the law of 1874 introducing compulsory revaccination throughout Germany at the age of twelve have already been published. Other valuable statistics were now produced, in particular the Bavarian statistics of Dr. von Kerchensteimer, the Leipsig statistics of Dr. Seigel, and the elaborate army statistics of Dr. Grossheim. In the last case accurate particulars were known as to 1005 small-pox cases, with 61 deaths amongst them. Of these 1005: 4 not vaccinated, with 1 death, mortality 25 per cent.; 109 successfully revaccinated, 2 deaths, mortality 1·8 per cent.; 224 unsuccessfully revaccinated, 10 deaths, mortality 4·5 per cent.; 531 not vaccinated, 46 deaths, mortality 3·6 per cent.; in 130 result of revaccination unknown, 1 death, mortality 0·7 per cent.; 7 doubtful, and no death. The whole number of cases in the German field army during the epidemic of 1870-1 was 4991, with only 297 deaths, or nearly 6 per cent. of the cases. Whether the number of cases in the French army given by some French writers was absolutely correct or not, it was impossible to say that number for the field army was 23,469. But in the Paris army, alone numbering 170,000, the cases were 11,500 and the deaths 1600 (nearly 14 per cent.). Again, the French prisoners in Germany were 372,918, the small-pox cases were 14,178, the deaths 1963—i.e., over 13 per cent.; while the unmobilised German army, on the other hand, numbered 300,424, the small-pox cases 3472, and the deaths only 162—i.e., 4·6 per cent. This was a striking instance of the protective power of vaccination, for Dr. Grossheim amply proved that the French army was far less thoroughly vaccinated than the German. The following were the conclusions of the Commission upon animal lymph:—1. Since the dangers to health and life (vaccination syphilis, vaccination erysipelas, &c.) occasionally connected with the use of the human lymph, so far as any direct transference of syphilis or of accidental wound diseases is concerned, and since vaccination with animal lymph has been recently so perfected that it may now altogether supersede the use of human lymph, the latter is to be replaced by animal lymph. 2. This is to be effected gradually, and, by the help of experience already gained, institutions are to be established for the provision of sufficient supplies of animal lymph. When the supply is thus secured, public vaccinations will be performed with animal lymph exclusively. Other conclusions followed. The arguments for and against animal lymph had been previously ably summed up in a memorandum emanating from the Imperial Board of Health. On the side of human lymph were—certainty of effect, simplicity of operation, and costlessness; while against it were the proved dangers of imparting syphilis and erysipelas, the theoretical possibilities of imparting tuberculosis, and, lastly, the difficulty of obtaining it at times. The advantages of animal lymph were—security against syphilis, the advantages connected with large supplies (viz., uniformity of character and subjugation to test-inoculation), simplification of the public vaccination work, and, lastly, the advantage of obtaining it under antiseptic precaution, to the certain exclusion of early erysipelas. The only disadvantages were somewhat less certainty of direct effect, a slightly more complicated operation in using it, and lastly its cost. But Koch maintained that compulsory vaccination could only be justified by their making it as absolutely safe as possible. It had been conclusively proved that syphilis could not be communicated to animals. Dr. Edwardes said that one point seemed to have occupied the notice of the Commission. If it was a fact, as stated, that the syphilitic virus could not subsist outside the human body except for a short time—certainly not more than a few days—the human lymph was as safe as calf lymph, if only arm-to-arm vaccination were done away with. The use of charged points or capillary tubes should be imperative in every case; but for this, again, the supply would never be sufficient. So that, after all, animal lymph was the only effective solution of the problem. The report teemed with valuable information.

Reviews and Notices of Books.

ANNUAL VOLUMES OF THE MEDICAL SOCIETIES.

Royal Medical and Chirurgical Transactions. Vol. LXVIII. London: Longman, Green and Co.—Twenty-one papers have been admitted into the Transactions in addition to the President's address. This Society publishes a quarterly account of its proceedings, which contain full reports of the discussions on the papers. This volume contains two papers on experimental pathology—one by Dr. Champneys on Cervical Emphysema, the other by Dr. Angel Money on the Experimental Production of "Chorea." Systematic pathological investigations are included in five papers—Dr. Percy Kidd on Tubercle Bacilli, Dr. Samuel West on Fatal Hæmoptysis, Dr. Hale White on the Histology of Semilunar and Superior Cervical Sympathetic Ganglia, Mr. Bland Sutton on Fatty Tumours, and Mr. Alban Doran on Non-ovarian Dermoid Tumours. Clinical investigation papers are by Dr. Ormerod on Ataxy in Families, and Dr. Beevor on Localisation of Motor Centres in Brachial Enlargement of Spinal Cord. Surgical cases were related by Mr. Walter Edmunds on Cirsoid Aneurysm of the Foot, Mr. Henry Morris on Lumbar Nephrectomy, Mr. R. Barwell on Double Simultaneous Distal Ligature for Innominate Aneu-

rysm, Dr. Lowson on Displacement and Fracture of the Axis, and Mr. J. Hutchinson on Lympho-sarcoma of the Tongue. Medical cases are contributed by Mr. Lunn and Dr. Benham—Aneurysm of Abdominal Aorta; one by Mr. Henry Morris in which gangrene of the lower limb set in; and Mr. Godlee and Dr. Hughes Bennett on the celebrated case of Cerebral Tumour. Two other surgical papers—one by Mr. Dalby on Perforation of Mastoid Cells, and the other by Mr. Richard Davy on Radical Cure of Club-foot, complete the list.

Transactions of the Pathological Society. Vol. XXXVI.—London: Smith, Elder, and Co.—The number of members of this Society is over 400; of these 85, or about 20 per cent., contributed communications or card specimens during the past session. The chief contributors were Dr. Carrington, Dr. Coupland, Dr. Goodhart, Dr. Hadden, Dr. Hebb, Dr. Percy Kidd, Mr. Arbuthnot Lane, Dr. Norman Moore, Mr. Stephen Paget, Mr. John Poland, Mr. Bilton Pollard, Mr. D'Arcy Power, Dr. Sharkey, Mr. Shattock, Mr. M. Sheild, Mr. A. Q. Silcock, Mr. Sutton, Dr. Charlewood Turner (twenty-two communications, chiefly card specimens), and Dr. Hale White (twenty contributions). The volume contains valuable reports of the Committee on Morbid Growths:—(1) Dr. Payne and Dr. Semon's Case of Rhinoscleroma, by Messrs. Goodhart and Butlin. (2) Dr. Lanchester and Dr. Hobson's Case of Caseous Pneumonia, by Drs. Payne and Coupland. (3) Dr. Carrington's Case of Acute Atrophy or Acute Cirrhosis of Liver. (4) Mr. Bilton Pollard's Case of Hypertrophied Callus of Tibia and Fibula, by Messrs. Eve and Sharkey. This specimen was most interesting, and caused considerable discussion; the whole of the Morbid Growths Committee were called in consultation and without coming to any definite conclusion. (5) Mr. Barker's Case of Tubular Epithelioma of the Upper Jaw, by Messrs. C. J. Symonds and A. A. Bowlby. A special committee investigated Mr. Lane's specimens of fractures, &c., of the hyoid bone.

Transactions of the Clinical Society. Vol. XVIII. London: Longman, Green, and Co.—There are more than 400 members of this Society, and 67, or about 16 per cent., of the members contributed papers to the Society's Transactions during the past session. The work was pretty evenly distributed, few members contributing more than one paper. Dr. Hale White, Mr. Charters Symonds, Dr. Stephen Mackenzie, Mr. J. B. Lunn, Mr. W. A. Lane, Mr. Jonathan Hutchinson, Dr. Colcott Fox, Dr. D. Duckworth, Dr. Carrington, Dr. H. C. Bastian, Dr. H. Bennett, and Mr. J. Morrant Baker were most actively at work in the department of original communications. The valuable report on Spina Bifida is contained in this volume; the Society must be particularly indebted to Messrs. Howard Marsh, Pearce Gould, H. H. Clutton, and R. W. Parker, for so instructive and important a contribution.

Transactions of the Ophthalmological Society. Vol. V. London: J. and A. Churchill.—There are fifty-six communications, six plates, and four woodcuts in this volume. The President's Bowman Lecture and a paper on Reflex Ophthalmitis are Mr. Jonathan Hutchinson's contributions. Mr. Nettleship and Dr. Brailey each contribute seven articles, Mr. Lang five, Mr. McHardy and Mr. Jessop four, Mr. Arthur Benson and Mr. Marcus Gunn each three, Mr. Adams Frost and Mr. F. R. Cross each two, and the following gentlemen one each—Mr. H. Eales, Mr. W. Edmunds, Ernest Fuchs, Mr. Hartridge, Mr. F. H. Hodges, Mr. Juler, Mr. Anderson Critchett, Mr. Lawford, Dr. McKeown, Mr. S. Morton, Mr. Mules, Mr. H. Power, Mr. P. Smith, Mr. Simon Snell, and Mr. Spencer Watson. The number of members of the Society is about 200; in the last session 25 members communicated original articles, or about 12½ per cent.

Transactions of the Medico-Chirurgical Society of Edinburgh. Vol. IV. New Series. Edinburgh: Oliver and Boyd.—Twenty-two original communications were made, twenty-seven patients were exhibited, the pathological exhibitions numbered forty-eight, there was an exhibition of thirty miscellaneous objects, and a special demonstration of the circulation in the web of the frog's foot by means of the oxyhydrogen microscopic lantern, during the sixty-fourth session of the Medico-Chirurgical Society. The most active members of this Society during the past session were Dr. Littlejohn, the President, who contributed an original communication and six pathological specimens; Dr. Clouston, Dr. M'Call Anderson, Dr. Andrew, Professor Annandale, Dr. T. A. G. Balfour, Mr. Joseph Bell, Dr. Byrom Bramwell, Dr. Graham Brown, Dr. Alexander Bruce, Dr. J. M. Brown, Dr. Caird, Dr. Cathcart, Professor Chiene, Dr. Allan Gray, Dr. James, Dr. P. M'Bride, Dr. R. Maclaren, Dr. A. G. Miller, Dr. R. M. Murray, Dr. W. Russell, Professor S. Stewart, and Dr. J. Symington. The number of members of this Society is 270; during the last session 44 members, or about 16 per cent., contributed communications.

Transactions of the Academy of Medicine in Ireland. Vol. III. Dublin: Fannin and Co. 1885.—The Academy of Medicine is composed of rather more than 200 Fellows. During the past year altogether sixty-five communications were made to the Academy, which contains medical, surgical, obstetrical, and pathological sections, and subsections of State medicine and anatomy and physiology. Dr. W. G. Smith, Dr. W. Bernard, Dr. J. B. Story, Surgeon-Major Hamilton, Dr. Wright, Dr. Magee Finny, Dr. Henry Kennedy, Dr. J. Little, Dr. Cruise, Mr. P. Ball, Mr. W. Thomson, Mr. Swanzy, Mr. W. Stokes, Mr. K. Franks, Mr. A. H. Benson, Mr. W. J. Wheeler, Dr. Lombe Atthill, Dr. More Madden, Mr. F. A. Nixon, Mr. P. S. Abraham, Mr. W. T. Stokes, Mr. Kilgarriff, Sir Charles Cameron, Dr. Jacob, Dr. Bennett, and Dr. D. J. Cunningham were amongst the principal contributors. Altogether there were forty contributors, so that about 20 per cent. of the Fellows of the Academy constituted its working portion during the past year. This volume is exceedingly well "got up," and, besides, would prove a valuable addition to a medical man's library.

CHRISTMAS LITERATURE.

THE wealth of this kind of literature seems to increase year by year. The following are a few examples which have reached us:—*Yule Tide*, published by Letts and Son, is a worthy specimen of the class, containing, besides readable matter, six splendid engravings and a coloured plate.—The extra number of the *Sporting and Dramatic News* is not much inferior in quality to that already mentioned, and is also accompanied by a coloured illustration.—The *Graphic* Christmas number is an excellent one; whilst that of the *Illustrated London News* exhibits features which enable it to compete successfully with its formidable rivals.—The December part of the *Sunday Magazine* (Isbister) is accompanied by an extra in the shape of a tale entitled "Where Two Ways Meet."—With *Good Words* is issued a spirited Highland tale called "Britta."—Those useful publications, the *Boys' Own Paper* and the *Girls' Own Paper* likewise follow the fashion.

THE HOMES OF THE WINDSOR POOR.—It is proposed by the Rev. Arthur Robins, of Windsor, to celebrate the coming jubilee of the Queen's reign by sweeping away the slums of the Royal borough. The rookeries of Windsor were condemned by William IV., and have latterly been denounced as a most fruitful source of evil by competent authorities. It is understood that the improvement of the homes of the poor of Windsor was a subject which the late Prince Consort had much at heart. The Bishop of Oxford and Lord Wolseley have both written to the Rev. Arthur Robins in support of his efforts to deliver Windsor from the danger and the reproach of its slums.

THE LANCET.

LONDON: SATURDAY, DECEMBER 19, 1885.

THE two most recent contributions to the subject of Disinfection emanate from English and American official sources, the first being contained in the recently issued Annual Report of the Medical Officer of the Local Government Board, and the other being the result of investigations carried out by a Committee of the American Public Health Association. The English report deals exclusively with the question of disinfection by heat, and it is the result of one of those inquiries on a comprehensive scale which can only be successfully carried out by a Government department, and which, like others of the same sort that have been issued from the Medical Department of the Central Board—such as those on excrement disposal, trade nuisances, and infectious hospital provision,—are calculated to assist sanitary authorities very materially in the efficient performance of their duties. Heat disinfection must, in the present state of our knowledge, be the method to find favour in so far as any public provision is in question, for heat is almost the sole agent to which nearly every known article likely to retain infection can well be subjected with any real assurance of success. Hence a vast number of machines for disinfecting by heat have been devised, patented, and exhibited, and the prominence given to these machines during the recent Health Exhibition afforded a favourable opportunity for investigating the merits of the several known appliances in a manner that could not possibly have been attempted by any Exhibition jury who voluntarily gave up such time as they could spare to the performance of their many duties.

The report is prepared by Dr. PARSONS, who shows at nearly every page of the document how eminently fitted he was to carry out the inquiry, both in regard to scientific attainments and to perseverance in the field of personal experiments with certain low forms of life, from none of which he recoiled, whatever they exposed him to. His principal conclusions are based upon an exhaustive investigation into the effect of heat, in its dry and moist forms, maintained for varying periods of time and under varying circumstances, upon such definite infective materials as the bacilli of anthrax, swine fever, tubercle, &c.; and the difference exhibited according to the presence or absence of spores is also considered. Nearly all available machines have been put to tests with these and other organisms; their behaviour as regards damage done to articles of clothing, &c., has been investigated; and the machines themselves are described, and in many instances depicted by means of illustrations; so that it will now be possible for any person or authority intending to provide means of disinfection to turn to an authoritative document and to learn there precisely what was the behaviour of that machine in the face of tests which can be regarded as settling in a definite manner the value of the appliance for its professed purposes.

The Report covers nearly two hundred pages and it will obviously be impossible in this review to enter into details concerning the merits and demerits of the several forms of apparatus dealt with, but it may be mentioned that a number of those which are largely in use, and especially of those in which dry heat is the disinfecting agent, are really useless for the purposes of true disinfection. On the other hand, both dry and moist heat can, with machines now available, be applied with a certainty of success, in so far as the destruction of the most tenacious of the known forms of infectiveness are concerned. Speaking generally, it is shown that, with the exception of spore-bearing cultivations of the bacillus of anthracis, all the infective materials experimented on were destroyed by an hour's exposure to dry heat of 220° F., or five minutes' exposure to steam at 212° F. The spores were, however, destroyed by four hours' exposure to a dry heat of 220°, or of one hour to 245°, or by five minutes' exposure to a heat of 212° in steam or boiling water. This conclusion gives the key to the problem under discussion. Both forms of heat may be trusted; but dry heat is much less rapid in its effect than moist heat. So also, where the question of the thorough penetration of such articles as bedding &c. is concerned, dry heat is found to be a more tedious process than steam, provided the latter be used under pressure. Both forms of heat, when efficiently applied, spoil a few articles; but the damage done in a really efficient machine of either sort is so trivial compared with the good effected that it need hardly be taken into consideration. The palm must, in point of efficiency, be given to certain high-pressure steam appliances. But steam has some drawbacks. The process of steam disinfection requires the constant presence of a skilled mechanic; the slower process of dry-heat disinfection can be carried out automatically at night when the person responsible for its efficiency may without risk be enjoying his night's rest. Some authorities will, from the amount of work they have to do, necessarily require the high-pressure steam machine; others will still prefer the automatic gas apparatus; and both may feel assured that, provided they choose a machine which has stood the official tests recorded in this report, they are securing an efficient appliance. But for some articles true disinfection is shown to be a matter of extreme simplicity, for, as Dr. BUCHANAN puts it in his preliminary sketch of the results attained, "all infected articles which could be treated by boiling water, so as to penetrate the substance efficiently by this means without injury to the articles themselves, could not be so well disinfected in any other way as by simple boiling for a few minutes." In some of his experiments Dr. PARSONS had the advantage of the assistance of Dr. KLEIN, and his descriptions of the experiments thus carried out, as also the general summary which is given as to the labours of other scientific workers in the subject of disinfection, will go far to make the report one of considerable interest to medical officers of health and other skilled workers.

The Committee of the American Public Health Association, which has dealt with the subject of disinfection, was presided over by Dr. G. M. STERNBERG, of the United States Army, and its report is made up of a series of separate documents by the several members, each dealing separately with a distinct subject. Most of the disinfectants experimented with and

reported on were chemical in their nature, but Drs. ROHÉ and STERNBERG deal also with dry and moist heat respectively. As regards spore-containing infectious materials, the report places, in order of efficiency as disinfectants, destruction by burning, steam under pressure, boiling in water for an hour, a 4 per cent. solution of chloride of lime, and a solution of 1 in 500 of mercuric chloride. Where spores are not in question other agents are recommended, such as dry heat, chlorinated soda, sulphur dioxide, carbolic acid, and chloride of zinc; and some very useful suggestions follow as to the best and most practicable means for the application of the several agents referred to under the various circumstances in which they may be needed. There is some slight difference in the opinions expressed by this Committee as regards the effect of dry heat and boiling, and those emanating from Dr. BUCHANAN'S department. But a perusal of the two documents leads us to think that, in so far as the influence of heat as a disinfectant is concerned, the English inquiry was carried out on a much more extensive scale than the American one, in which the value of chemical reagents occupies the most prominent position. The two reports, taken together, form an invaluable summary of this question of disinfection, and it is to be hoped that they will succeed both in ridding the public of a vast number of fluids and powders which are sold under high-sounding names, but which do little more than replace one smell by another, and also of enabling all who are concerned in providing public appliances for disinfection to spend the ratepayers' money on the purchase of really efficient machines.

LAST week we took occasion to observe that grave perils attend the practice of allowing the insane so much liberty as they are permitted under the advanced system of asylum management adopted in Scotland; and to point out that the Board of Commissioners responsible for the exercise of control in that part of the United Kingdom appear to discharge their official duty with considerable lukewarmness, if not actual inefficiency. We must not be supposed to view the undoubtedly humane endeavour of the specialty across the Tweed, to render the lives of the insane as happy as possible, without the warmest sympathy. Those who are familiar with our views on this question will not need to be told that reform of the Lunacy Laws in the interests of the subjects of mental disease is one of our most cherished desires. We have hailed with satisfaction the proposal to assimilate the English law to the Scottish law in many important particulars; we have acknowledged with much gratification the success of the boarding-out system as it is administered in Scotland; and we have commended and even coveted the admirable courage displayed by those medical superintendents of asylums in the North who dispense with the prison-like, and, as we believe, clumsy, irritating, and wholly needless precaution of "locked doors." All this and more we have admired and extolled to the credit of the specialty in Scotland, while, on the whole, and conspicuously in many particulars—notably for their generous recognition of the good work done by asylum medical officers,—we have given very high and just praise to the Scottish Board of Commissioners; nevertheless, it is time to give them also a word of admonition. Some ten years ago it was needful to remonstrate with the Board in Scotland on the score of their wondrously egotistical assumption of censorial authority in matters of medical practice. We had then to remind them that it was no part of their duty as Commissioners to play the *rôle* of consultees in lunacy. The fact that they were medical men did not, we argued, give them *medical* responsibility, or justify their interference in "treatment." We fear there is some need to repeat the words of caution we addressed to the Scottish Board of Commissioners a decade ago. The boundary line of duty must be kept distinctly in view, and on no account crossed, if the Board is to retain the respect it has done so much to secure. Again, unfortunately, a good deal of patronage accrues to the Scottish Commissioners. This is a most undesirable state of matters, and one which must surely call for revision when the Lunacy Acts are revised. Meanwhile it will behove the Board to see that neither in its corporate capacity nor by its members acting independently is there any sort of malfeasance in connexion with the exercise of functions which ought never to have been entrusted to the Board. Commissioners in Lunacy should be simply and solely supervisors, and no power or privilege ought to be conferred on them which can by any twist or misadventure be unjustly or unadvisedly exercised. It is not without reason we write thus, and, with all good feeling and respect for their well-intentioned and in the main well-directed energy, we take the opportunity to point out for the information of the Scottish Board of Commissioners that facts have come to our knowledge which show that a thorough and prompt scrutiny of their proceedings and a general measure of "putting the house in order" is urgently necessary. Little more need be said. If the law is defective in that it does not specifically prohibit the fact of a Commissioner having an interest in one or more of the asylums under the supervision of the Board, that body should for its own credit's sake boldly rid itself of the peril of scandal which must exist if any one of its members actually possesses such an interest. We simply point to the sort of scrutiny which it is desirable to carry out; and while the Board is voluntarily submitting itself to an ordeal of self-examination, we would suggest that the question should be pressed home in every direction—whether or not, with a view to advance the success or reputation of certain asylums, or to support particular views, it ever happens that removals and discharges of patients are, we will not say manipulated, but—controlled? We do not allege that wrong has sometimes been done, but we think it would be well to ensure that no sort of ground or excuse for scandal exists. CÆSAR'S wife must be as pure as she seems and claims to be.

IT has been often observed that statistics may be made to prove anything. Like many other similar sayings it has its true as well as its false meaning. Rightly used, fairly stated, and treated with scrupulous accuracy, they are of great value. It was observed by Dr. ROBERT BARNES many years ago that statistics were very despotic: certain columns are marked off, and diseases must go into some column, even when there is some reasonable doubt as to which column they ought to go under. There are other difficulties in connexion with all statistics, which, together with that just mentioned, make it very easy for unscrupulous persons,

determined to prove their own crotchets, to make statistics prove anything. We have seen that the object of the Contagious Diseases Acts was to remove sources of disease from certain naval and military stations. This was done by the periodical medical examination of all the prostitutes in these localities, and by detaining all that were found to be diseased in hospital until they were cured. That this ought to effect a reduction of disease among the women themselves, and among the men who associated with them, was so obvious that statistics were scarcely needed to prove it. If the latter showed no reduction, it would simply be either because the Acts were not efficiently applied, or because the statistics were erroneous. Now, as we have seen, the army statistics were from the very first subjected to the scrutiny of an observer who was opposed to the Act of 1866. Dr. GRAHAM BALFOUR objected to the periodical examinations of prostitutes, and if the Acts had been hygienic failures he would have been the first to discover this and to point it out. On the contrary, although the Act of 1864 had removed a mass of disease in women, and effected a considerable reduction of disease both in the army and navy, the effect of the Act of 1866, amended and improved by the Act of 1869, was such as to convince Dr. BALFOUR of the value of periodical examinations in reducing those primary sores which were followed by constitutional syphilis. It has been contended by some of the medical opponents of these Acts that the grouping of all primary sores under one head is incorrect. This shows ignorance not only of the manner in which these statistics are prepared, but also of the most elementary knowledge of venereal practice. The returns are prepared weekly, and anyone with experience must know how impossible it is at first, in a large number of cases, to say more than that a sore is a "venereal" sore. For what appears at first to be mere abrasion, pimple, or simple ulcer may develop into what is the initial manifestation of syphilis. Again, the sores may be multiple; all save one may be healed in a few days, the remaining one subsequently becoming indurated and being followed by constitutional syphilis. The classification of all these under the heading of primary venereal sores is the only correct one which could be adopted. It was, moreover, in accordance with the nomenclature adopted previously by the Royal College of Physicians and approved by the Privy Council. When, therefore, Mr. STANSFELD, ten years ago, charged upon the compilers of the Army Medical Reports an unscientific, a false, and a misleading classification, we could only smile at his ignorance. But it is lamentable that he should have received support from members of the profession who are placed in this unenviable position—either of being as ignorant as Mr. STANSFELD, or of supporting a statement which they must know to be untenable. The Select Committee of the House of Commons who made the last inquiry into the working of the Acts, and with whose report, published in 1882, we shall now deal, went thoroughly into this as into other subjects of controversy, and summed up the primary sores discussion as follows:—

"The Army Medical Department being obliged to give weekly returns of primary sores as they arise, without waiting for their development, is under the necessity of classing all primary sores under one head for statistical purposes. This does not pledge it to either of the theories described, nor does it appear to your Committee to interfere with the value of the departmental statistics as to the disease."

Now both the army and navy returns of syphilis are liable to be influenced by the fluctuations to which syphilis, like other diseases, is liable. It has been well known for many years that it will at one time be most intense for a period, and then diminish without any obvious reason. Hence the importance of making due allowance for this in all statistics, whether of subjected or unsubjected stations. Of this important fact the army and navy statisticians were well aware, and made due allowance for it. On the other hand, the opponents were either unaware of it or found it convenient to ignore it: hence many blunders were made which would be amusing were the subject less serious. The returns for the army were from the year 1873 to the end of the year 1879 liable to another disturbing element—viz., the order known as Lord CARDWELL'S Order. This had the effect of stopping the pay of men under treatment for primary syphilis and gonorrhœa, and, as might have been expected, led to considerable concealment of both these diseases. The result was an apparent but unreal diminution of their prevalence, and an apparent and real increase of secondary syphilis, the result of concealed and neglected primary sores. This Order ceased to operate late in 1879. The Acts had got into full working order by the beginning of 1870 and continued effective until 1873, when the consequences of Lord CARDWELL'S Order began to interfere with their operation Consequently the statistics of the period from 1870 to 1873 afford the most satisfactory basis for estimating the value of the system.

All these various circumstances were fully considered by Inspector-General LAWSON, who gave evidence before the Committee, and they were thoroughly dealt with by the latter in their report. Mr. LAWSON is well and favourably known as a most painstaking and thoroughly reliable statistician—one who is always most careful to exclude every source of error. For the purposes of the inquiry comparisons were instituted (*a*) between fourteen subjected districts (Southampton being left out) and all unsubjected stations; (*b*) between the same fourteen subjected districts and fourteen unsubjected stations. The following is an extract from the Committee's report:—

"A comparison was instituted of the changes of condition as to the three kinds of venereal disease between the period anterior to the operation of the system, and the period immediately following its introduction in the fourteen subjected districts. Subsequently, a similar comparison was instituted in the case of all the stations which have never come under the Acts, called, for the sake of brevity, 'the non-subjected stations or districts.' A twofold comparison of periods of equal length was instituted. The first contrasted the period from 1861 to 1866, inclusive, with the period from 1867 to 1872, inclusive. The former of these periods covers a time when the Acts of 1866 and 1869 were not in force; the latter, a time during the earlier part of which, though not completely applied, they were being actively brought into operation, and during the latter part of which, from 1870 to 1872, they were, as we have seen, in full working order. The second comparison contrasted the period between 1860 and 1863, the period immediately preceding the introduction of the system by the Act of 1864, with the period between 1870 and 1873, the period of their full operation. Your Committee also took evidence

contrasting the fourteen subjected with all the unsubjected stations from 1873 to 1878. The statistics of 1878 are the latest which your Committee has been in a position to deal with for the purposes of their report."

After giving the most elaborate minutes of the various statistics thus obtained, the Committee briefly sum up the results as follows:—

"Your Committee are of opinion that the Acts have successfully served the two objects to which they were directed—the diminution of venereal disease and the increased efficiency of the army. It is to be remembered that the Acts have had in reality but an inadequate trial. In the earlier years, from 1866 to 1869, they were not in full efficiency. The three following years were not a sufficiently long period to develop their full influence, and their utility thenceforward has been diminished, up to 1879, by the action of Lord Cardwell's Order. The benefit conferred since 1866 is great, but it is only an earnest of what the Acts may be expected to do hereafter for the health and efficiency of the army."

In striking contrast to this was a return presented to the Committee during the third year of their inquiry. From this it appeared that within ten months of the arrival of a regiment in Dublin over 43 per cent. of its men had been incapacitated from duty by venereal disease. Dublin always contains a considerable number of soldiers, and has been an unprotected station, never having been placed under the Acts. But the so-called voluntary system has had in it a long and fair trial. The Westmoreland Lock Hospital has been established ninety-three years. It has a Government grant of £2600 per annum, which enables the Board of Superintendence to keep seventy-five beds made up, all for females. Its surgeons are Messrs. RAWDON MACNAMARA and HENRY FITZGIBBON, gentlemen of acknowledged position and experience; and the hospital is well managed. How, then, comes it that there is such a fearful amount of disease among the prostitutes of Dublin, which produces such disastrous results to the troops stationed there? The answer is—the want of regular periodical examination of these women. This would save them from great suffering and the troops from so much invaliding. To argue the continuance of such a state of things on moral grounds, as the opponents of these Acts do, is an abuse of language. As we have seen, the reduction of these diseases and the promotion of morality may be carried on together; there is nothing incompatible between the two. If the Acts are not soon restored to their former state of efficiency, we shall have all our military and naval stations in a state closely resembling that of Dublin.

THE Mansion House is never more worthily used than in the dark days of December, when the delegates from the churches of London assemble together under the presidency of the new Lord Mayor to organise the Hospital Sunday Fund for the coming year. The meeting of Tuesday was attended not only by the new Lord Mayor, but by the new Earl of SHAFTESBURY, and it was gratifying to notice the Earl's hearty sympathy with the movement and his sympathetic allusion to "the Lazarus that is at our gate full of sores" and needing all the kindly and substantial help that we can give him. Sir SYDNEY WATERLOW remarked with just satisfaction on the fact that the Fund had, in spite of the extreme commercial depression of the year, reached as high a sum as it had ever reached, and that the number of the contributing congregations had very largely increased. He did not shrink, either, from alluding, in moving the first resolution—to adopt the Report of the Council—to the delicate subject of the nursing by sisterhoods, as it had been raised in connexion with University College Hospital, and disposed of in the Report of the General Purposes Committee, which we published a fortnight since, and which was adopted by the Council of the Fund. He reiterated, what all the members of the Fund feel, that it is beyond the powers of the Council to interfere with the internal administration of hospitals so long as they are conducted in an efficient and fairly economical way. Dr. ALLON followed to the same effect, and showed how, though at first somewhat active in inquiring into the matter in the Council, he soon became convinced that it was one which the Council must leave to the individual hospitals. Thereafter this question became the chief point of discussion. The Rev. Mr. HIGGINS, of Greenwich, gently, and in a speech of admirable temper and spirit, rated Dr. ALLON with having "thrown up the sponge. He admitted that it was not possible for the Council to interfere; but he proposed a motion expressive of a hope that all hospitals would soon cease to be sectarian in their requirements and services. His motion was seconded. Dr. HARE thereupon rose to the defence of University College, and maintained that, although nursed by a sisterhood, it was as well nursed as any hospital in the world, and infinitely better than it used to be under the old *régime*. At this stage of the meeting a working man rose and spoke with much force, to the effect that so long as nurses were kind and careful it was irrelevant to inquire into their religion, and that it would be an intolerable thing to introduce controversial or sectarian questions into such a movement as the Hospital Sunday Fund. His speech made a great impression on the meeting, and probably helped to convince all the ministers and clergy that the introduction of sectarian questions would be highly unadvisable. After Sir SYDNEY WATERLOW had reminded Dr. HARE that nursing in all hospitals had in the last twenty years undergone a radical change, Mr. HIGGINS withdrew his motion, while strongly expressing his hope that hospitals would discontinue a system which excluded any competent persons on the score merely of their religious opinions. The motion for the adoption of the Report was carried, with about eight dissentients.

And so, as concerns the Hospital Sunday Fund, this matter must be considered at an end. We feel convinced that no congregation will allow its objection to an exclusive system of nursing to abate its interest in a Fund so beneficent in its purpose and so deeply needed as the Hospital Sunday Fund. Rather they will see in the Fund, both in its constitution and in its working, the best argument for persons of all creeds working together for one immensely important and benevolent purpose. At the same time, we must say with plainness that individual hospitals will do well to eliminate from their administration all that is narrow and exclusive. We live in a country where opinion is much divided, and where hospitals have to be maintained by those who hold widely different views. For the sake of the patients who use them, and for the sake of the public who support them, it is well that they should

appeal to universal sympathies and to broad religious feelings; and the hospitals which do not so appeal are likely to find out that they have made a mistake.

ATTENTION should be drawn to the lectures recently delivered by Dr. BUZZARD at the Harveian Society, which deal in an original and masterly way with a subject full of difficulty, importance, and novelty; for while diffuse peripheral nerve disease has recently been studied by able observers both in this country and abroad, it is still but little known to the majority of medical men. "Paralysis from peripheral neuritis" might seem at first sight to be the simplest form of paralysis, and most easy of recognition; for the symptoms attaching to neuritis of a single mixed nerve, such as pain, tenderness, sensory and motor disturbances, trophic changes in muscle and skin, and alterations in electro-irritability, are, as a whole, characteristic, and their anatomical distribution enables us unhesitatingly to localise their source. But we may be met by a double difficulty: firstly, as Dr. BUZZARD shows, even in a simple case, the whole assemblage of symptoms may not be present, the motor changes may overshadow the sensory or *vice versâ*, pain may be absent, and the electrical reactions may vary; and, secondly, not one but many nerve trunks may be affected, and that at various areas of their distribution, so that mere anatomy fails us, and a difficulty—nay, an impossibility—may arise of diagnosing peripheral from central disease. The lectures are based on cases from the author's own experience, arranged as follows. A typical case of simple neuritis is described, followed by others in which the symptoms are more variable, but still are evidently referable to a simple peripheral neuritis. The observation is incidentally made that many of these cases are to be connected with gout. From these we are led up to the complicated subject of multiple nerve disease. In this class of case the symptoms and their distribution may be very various. The lower limbs only may be affected, or there may be an almost universal paralysis, as in two cases previously reported by the lecturer at the Clinical Society. Pain may be prominent or absent, ataxia may be a predominant symptom (as in cases described by DÉJÉRINE as nervo-tabes periphérique), or there may be an atrophic paralysis indistinguishable from that caused by anterior pyomyelitis. Yet the diagnosis from central disease is all-important; for it seems certain that in many cases of peripheral nerve disease the prognosis is less gloomy and treatment more successful. Treatment is often dependent on a knowledge of the etiology; and on this important and practical point much stress is laid by Dr. BUZZARD. In this country, at least, syphilis, gout, lead-poisoning, chronic alcoholism, diphtheria, and perhaps other acute specific diseases, appear to be the commonest causes of multiple neuritis; and the disease may present certain distinctions of character according as it is due to one or other of these causes: thus, as in lead paralysis we get dropped wrist, so in alcoholic paralysis we get dropped feet; as in alcoholic cases paralysis with muscular atrophy predominates, so in diphtheritic cases ataxia with mere muscular weakness is most common. Yet intermediate cases may be produced which show that one and all of these varieties are dependent on the same peripheral nerve disease. We must notice, in conclusion, a very accurately observed case of diphtheritic paralysis; the full discussion and illustration of that form most important to recognise—viz., alcoholic paralysis; and the remarks on the differential diagnosis of multiple neuritis from other forms of nervous disease—a portion of the subject which will, as this form of disease becomes more widely known, demand very close attention.

Annotations.

"Ne quid nimis."

DR. COLLIE.

As yet the Local Government Board have not given their approval to the reinstatement of Dr. Collie, but this can doubtless be only a matter of time. It is an interesting fact, as indicating the influences which are at work, that more than one Board of Guardians has memorialised the Local Government Board not to give the required assent. Fortunately for the interests of justice, the local journals frequently publish the proceedings of these bodies, and a recent account of a discussion of Dr. Collie's case by the City of London Guardians sufficiently shows how far these gentlemen are fitted to be judges or to influence the Central Board. We have no doubt that this Board will be guided solely by the advice of its own inspectors, and by the resolution of the Metropolitan Asylums Board. To depart from such a course would be to shake to the foundation the confidence which officers place in the Local Government Board, and to inflict great injury on an important branch of the public service.

THE SANITARY STATE OF ALDERSHOT.

THE Aldershot Local Board of Health have evidently given careful consideration to the report on diphtheria and its attendant sanitary circumstances which was presented to the Local Government Board in July last by Mr. Sweeting, and on which we recently commented. They do not profess to dispute the mortality and diphtheria statistics given, but they do not accept some of the allegations as to roadways, cellar-dwellings, the construction of dwellings, &c.; indeed, they doubt whether Mr. Sweeting would have stated what he did as to some of these matters if he had been an "expert in building and engineering." Looking again at Mr. Sweeting's report, we are bound to say that the descriptions he gives required no such special skill as an "expert" in the branches referred to alone possesses, and the answer which has been prepared by the Committee of the Board is not fortunate in the attempt made to dispose of the allegations made in this respect. This report also talks of "pitfalls," &c., into which Mr. Sweeting has fallen, but we are bound to say that we see nothing in the answer which proves this. But, after all, the committee advise some excellent work to be taken in hand, and if the authority are of the same mind as the committee, Aldershot will be all the better to live in for the official visit it has received. Improvement of the sewers, the closing of wells, the extension of the public water-service, the disconnexion of house-drains, and a better system of scavenging are all advocated, and we trust that nothing will occur to prevent their adoption. In one important respect the committee give bad advice to their authority. They consider that it is unnecessary to provide means of isolation for the prevention of a disease the spread of which can alone be controlled by isolation, except in so far as the Farnham Union already supplies the want; that is to say, everyone consenting to isolation in the interests of the public is, in consequence, to be branded with the stigma of pauperism. We know how useless this provision was to stay diphtheria in Aldershot

during the recent prevalence, and yet we see a committee advising that nothing more should be done. One great point made in the committee's report is that they have no power to compel the registration of infectious diseases, and they make another demand to have this power conferred upon them. It is, however, quite certain that without an isolation hospital the authority could not carry out the principal means of prevention for which such knowledge of cases is supposed to be required; indeed, the authorities that have acquired the desired powers, and who have failed to provide themselves with a hospital, are precisely the ones that have least benefited by the information which they have obtained. When Aldershot has taken the needed steps to control infectious disease as soon as a case comes to its knowledge, then it will be time enough to say that it ought to be provided with the information necessary for the measures of prevention which have been organised. On this point the committee are radically wrong. But, on the whole, their report gives promise of improvement and of progress in the sanitary state of the town.

TRANSPLANTATION OF THE EYE.

AT the séance of the Société de Chirurgie of Paris, held on Dec. 2nd, an interesting report was read by Mons. Terrier, *à propos* of an observation presented to the Society in August by Dr. Rohmer of Nancy, which bore the title, "Observation of Graft of the Eye (eye of a dog) in a woman of forty-two years: the globe of the transplanted eye adheres by first intention to the soft parts of the orbit; sphacelus of the cornea on the seventh day; atrophy of the globe." In his report M. Terrier gives the history and existing state of this operation, which from its novelty and from the encouraging results deserves a wider attention than it has received. From his report it appears that at the present time the operation has been attempted five times: the first was by Dr. Chilset on May 4th, 1885; the second by M. Terrier, on the 15th of June; the third by M. Rohmer, on the 22nd of June; the fourth by H. W. Bradford, of Boston, on Aug. 9th; the fifth by M. Terrier, on Oct. 19th. Of these five attempts only one could be said to be really successful—viz., the fourth, by H. W. Bradford, who employed a rabbit's eye. The choice of what eye to use does not appear to signify much, for the dog's eye, which is much more allied in size and structure to that of a man, has failed in the one operation in which it was used. In the successful operation the patient was thirty-five years of age, and the method of operation adopted was first to suture the optic nerve, then to attach the recti muscles to the subconjunctival connective tissue of the globe, and finally to suture the conjunctival membrane, thus multiplying the points of attachment and giving a firm support to the eye. In his first operation M. Terrier left a good margin of cornea in the eye to be transplanted, and plenty of subconjunctival tissue, which was removed in Dr. Chilset's operation, and appeared to form one of the elements of the failure. There were eight sutures placed between the conjunctivæ, but an entropion of the lower lid was produced, and on the third day sphacelus of the cornea set in. A similar method was followed by M. Rohmer, and in his case the sphacelus of the cornea appeared on the sixth day. In his second case M. Terrier adopted a part of the operation of the American surgeon, and placed sutures through the conjunctivæ of the patient and the recti muscles and the conjunctiva of the transplanted rabbit's eye. The lids were closed with silver wire to prevent the entropion. At the present time the operation is too young to predict much as as to its future. If the operation fail no bad results appear to follow, for when it becomes painful the stump can be taken away in time to prevent sympathetic changes. It certainly would be a gratifying result if it were found that with careful approximation of the optic nerve the strands of nerve tissue were found to grow into the engrafted eye, but at present the operation has not been undertaken with this idea in view, but rather for the sake of appearances. It certainly is a curious fact that the only case which has succeeded has been that in which the suture of the optic nerve was made.

ROYAL PHEASANTS.

THE annoucement from time to time of a present of game to the poor and afflicted in our London hospitals from Her Majesty the Queen, his Royal Highness the Prince of Wales, and other members of the Royal family, cannot do otherwise than cement still stronger the attachment between our Royal family and the great body of the poor and lowly, whose lives, at best, are one hard struggle for existence even in health, and when afflicted, few but medical men can realise the distress and suffering that have to be undergone, and how bravely and patiently they are borne. To be thought of and sympathised with by the Queen and Prince of Wales in the pleasant and kindly manner of which we have proof from time to time gives encouragement and raises hopes in affliction, and tends to lessen that chasm between high and low which moralists point at as a reproach to our civilisation. Few things would tend more to make our game laws popular among the people than permitting the poor to share, if not in the actual pleasures of sport, in some of its products. The example set by the Royal Family should be followed by our sporting country gentlefolk. A present of pheasants, some rabbits, and a few hares to the local hospital or to the union infirmary by the squire of the district or those who hire the shooting, and a few less to rich friends and the poulterer, would be a pleasant phase of socialism, to which none could object. The tract of forest land from Windsor to Bagshot Park is mainly given up to game preserving. It would seem at first sight that these thousands of acres, within twenty-five miles of the metropolis, could be turned to better account. But the land is poor and unproductive, and some of it quite incapable of cultivation. Those who would begrudge the Royal Family the pleasure of their sport in the Royal forest while they make such good use of the game they kill must indeed be hard to please.

DECAY OF THE TEETH.

IN the introduction to his "Natural History of the Human Teeth, explaining their structure, use, formation, growth, and diseases," published in 1778, John Hunter indicated a good and clear line of delimitation between the province of the medical practitioner and that of the dentist. It may be worth while to reproduce his opinion for contemporary guidance: "All the diseases of the teeth, which are common to them with the other parts of the body, should be put under the management of the physician or surgeon; but those which are peculiar to the teeth, and their connexions, belong properly to the dentist." It follows from this that decay of the teeth is a malady which ought to be regarded as falling within the province of the medical practitioner, and we incline to think it deserves more general and closer attention than is commonly bestowed upon it. Hunter (whose works might, with those of Cullen and the older writers, be advantageously studied again by the generation of practitioners who have forgotten them, and even condescendingly read by that contemporary generation which has been so beneficently provided with newer and better light and leading) was of opinion that decay of the teeth had great significance as regards the state of health. He argued, and not unwisely, that if a part of the organism which is not subject to rapid decay after death dies during

life, there must be something active to kill it, or, as he put it, "there is some operation going on which produces a change in the diseased part." And he deduced from the morbid anatomy of decay of the teeth that it is not due to external or accidental causes, but that the evil commences within; moreover, that "this disease and its consequences seem to be peculiar to youth and middle age; the shedding teeth are as subject to it, if not more so, than those intended to last through life, and we seldom or ever see any person whose teeth begin to rot after the age of fifty years." This last fact is notable. If a man can keep his teeth until after middle age, he may generally count on keeping them to the end. There seems to be some reason for thinking that decay of the teeth is commoner now than it used to be. Assuming this to be the fact, it would be interesting to inquire whether there is anything in our modern mode of life which has a tendency to cause the teeth to decay. The old-fashioned notion about eating sugar and acids and the like is exploded. Meanwhile it may be worth asking if want of vigour is not a cause of decay of the teeth, and if the want of vigour observable among certain classes of children and young persons is not due to the increasingly artificial character of the lives the young lead; with diminution of fresh air and exercise, and that aggravation of mental tasks and brain and nerve worry which characterises the educationary and developmental stages of our modern life. The young people of America are particularly subject to decay of the teeth, and the young people of America are conspicuous for their advanced mental culture and the protective care bestowed upon them. They are fed and dressed like adults, and they are "forced," in an intellectual sense, to the serious depreciation of the organic material of which the human body with its brain and nerves is composed, and of the vital energy with which it ought to be endowed.

THE ORDER OF ST. JOHN OF JERUSALEM.

FROM the report of the Association now before us, a large amount of useful work appears to have been done by it during the year 1884-85. In addition to the assistance given in the shape of diets to convalescent patients and in district nursing, the formation of district centres and the instruction of ambulance classes have been carried on over a widely extended area. During the year from July, 1884, to July, 1885, the number of certificates of proficiency awarded was 10,123. Of these, 5342 were given to male classes, 3417 to female "first aid" classes, and 1364 to nursing classes. The instruction thus given cannot fail to be very useful, especially in the case of such bodies as the police and constabulary forces, fire brigades, volunteer corps, &c. This work appears to have been carried out, not only at home but in India and the colonies, with much success. A number of instances are given in the report of the valuable service done by the certificated pupils of the Association, especially in the mining districts and large manufacturing towns, in the careful removal of the injured in cases of accidents, and the prompt aid afforded where delay might have been attended with fatal consequences. An interesting report is given by Mr. J. Furley, the Director of the Ambulance Department, "On some of the results of eight years' work of the St. John Ambulance Association." In speaking of the lectures on nursing which have been delivered under the auspices of the Association, he gives a judicious, and we believe needful, caution: "It is a mistake to suppose that any superficial instruction will of itself qualify women to take the place of trained and experienced nurses either in peace or war, though it may be, and it sometimes has been, the first rung of the ladder which leads to that position. On this point there should be no misapprehension. Many generous and impulsive persons seem to imagine that, because they possess certificates from the St. John Ambulance Association for First Aid and for Nursing, they are fully justified, on the outbreak of a war, in volunteering for hospital service abroad. Only a long, patient, and arduous apprenticeship in hospital can fit men or women for work, the first essential lesson in which is obedience and discipline." In addition to the labours in the store department, Mr. Furley has done good service in designing and superintending the building of sixteen horse ambulance carriages, which are now in use in some of the principal towns of England, and one of which was, at the request of the Princess of Wales, sent to Cairo for the branch of the National Aid Society there. The Association appears to be doing a good work quietly and steadily, and on this account to be well deserving of public support.

"POLITICAL MANIA."

IT is suggested that there may be such a thing as "political mania," just as there is—or is supposed to be—a "religious mania." Speaking generally, we are inclined to regard the specialities of maniacal disease, so-called, as localisations or characterisations of a common malady. There are, however, reasons for thinking that the mental disturbance set up by political excitement may be specific. It is certainly a most malignant type of madness which this perturbing influence gives rise to. The animosity with which men of differing views regard each other is out of all proportion to their individual interest in, or concern with, the questions on which they differ. Even granting the Englishman's love of disputation, and the earnestness wherewith he throws himself into any quarrel, often taking what he knows or suspects to be the weakest side "out of pure aggravation," it is still inexplicable, except on the hypothesis of disease, to account for the rancour of his antagonism in politics, and the bitterness with which he will deny to his opponents a vestige of principle or the smallest claim to respect for honesty. If Lord Bramwell had not so vehemently denounced the bare notion of there being such a thing as "moral insanity," we should have been inclined to adopt the term "political insanity," or even to have coined a complex name for the malady, such as "politicomania," to place in the same category with dipsomania, kleptomania, and the like. In any case, the subject of the astounding mind or brain disturbance of which so many sad examples are at the present extant as the result of the recent elections is one that calls for very serious inquiry.

THE CAUSE OF CORYZA.

THE Journal of the American Medical Association contains a paper read by Dr. Austin Flint lately before the Brooklyn Branch of the New York State Medical Association, suggesting that coryza is not due to cold, as is commonly supposed, but to a parasitic cause. A common "cold," as it is carelesaly called, is one of the most frequent and most despised of diseases, but he would be a great benefactor who should demonstrate its exact cause. Dr. Flint is right in saying that when attributed to "cold" there is often no evidence of how "cold" was caught. Often it comes on in force in an over-heated room. Those most exposed to cold, as sailors, do not get coryza. Though often seemingly due to strictly personal causes, as over-fatigue, loss of sleep, and other forms of exhaustion, they often are prevalent, and run through families, as if there were a contagious element in them, as in influenza, which often begins in the nasal passages. Lately such "family colds" have been a feature of general practice, often with severe purulent inflammation of the nasal and ethmoid surfaces, leading to a liberal use of pocket-handkerchiefs.

Dr. Flint thinks that these facts will one day find their explanation in a parasitic theory, though he admits that this is not demonstrated, and that so far he has no therapeutic facts to produce to support the theory. One of the best remedies for this inflammatory affection of the Schneiderian membrane in its subacute and chronic form is quinine in two-grain doses two or three times daily. Dr. Flint mentions the insufflation of quinine and camphor, combined and pulverised, as one that has been mentioned to him as a successful abortive treatment, and says that Helmholtz found, in his own case, that the injection of quinine into the nostrils arrested the disease. We must leave Dr. Flint's theory with the remark that, should it prove correct, it will only be another instance of disease popularly attributed to "cold" being really quite independent of such a cause. The grave cases of puerperal fever have been from time immemorial attributed to cold, and on this theory fresh air has been excluded. We now know how thoroughly bad this theory is, and how disastrous is such a view of puerperal disease, which we now attribute to foul air and to foul discharges absorbed from open surfaces.

THE BIRMINGHAM BOARD OF GUARDIANS AND THEIR SENIOR MEDICAL OFFICER.

AT a meeting of the Birmingham Board of Guardians, held on the 9th inst., some strong language was indulged in by some of the guardians in reference to a recent outbreak of puerperal fever occurring in the workhouse. One gentleman remarked that "some of the cases had occurred owing to a want of judicious management on the part of Dr. Simpson, head medical officer." Another attributed a case "to the utter folly and recklessness of Dr. Simpson." As a natural outcome of these assertions, Dr. Simpson asked the coroner to hold an inquest on one of the patients who had died. Evidence was given by Dr. Malins, who had been called in to see the case during life, and also by Professor John Clay, who had made a post-mortem examination of the same patient, and a verdict of "Natural death" was returned. In the course of the inquiry it transpired that Dr. Simpson had not attended the patient himself, and had only made an examination of her chest, as she was admitted suffering from a marked condition of phthisis. In this instance, therefore, it was clear that he was not to blame, and that the strictures passed upon him were not borne out in evidence. We understand that an inquiry is about to be instituted by the Local Government Board upon this outbreak, and as to the relations of the guardians with the medical officer.

BABY-FARMING PREVENTED.

AT Southwark Police-court on Monday, a woman was fined for receiving to nurse two young children under a year old without being registered as required by the Infant Life Protection Act. Her house consisted of three small ill-ventilated rooms. Only one of these—a room eight feet square—was occupied. In it were her sick husband, two children of her own, the two infants, and herself. She pleaded ignorance of the Act and great distress from want of work and sickness, and had taken in the nurse children as a means of support. On being summoned, she undertook to restore the children to their parents. It is impossible not to feel some pity for this poor woman in her sore hardship. At the same time there is little doubt that the children entrusted to her were exposed to certain illness and not improbable death. The judgment and promptitude shown by Mr. Samuel Bailey, inspector, in tracing the family and, for the present at least, saving these two lives, are, therefore, the more worthy of commendation. Guided by mere suspicion, awakened by a newspaper advertisement, he ascertained the fact of non-registration, and by further inquiry was able to prevent the usual fatal termination in this case of baby-farming. It is difficult to say how the ill-effects of nursing out are to be minimised. So long as the chief causes of this faulty custom—poverty and illegitimacy—continue, we shall probably see more than enough of it. The crèche system, if administered with reasonable care, has done something, and should yet do much more, to obviate its worst consequences. Notwithstanding every such provision, it is probable that the practice will long continue to hold its ground among the poor. We therefore note with pleasure the conduct of this inspector as an earnest that in future other cases of baby-farming which may unfortunately come before the public eye will be illustrated by rescued, rather than by famished and dead, children.

TYPHOID FEVER IN THE AUSTRALIAN COLONIES.

THE twenty-fifth annual report of the Registrar-General for Queensland, relating to the year 1884, calls attention to the most marked increase in the mortality from typhoid fever in that colony in recent years. The two most fatal diseases in 1884 were dysentery (especially fatal among the native population) and phthisis. Third in order of mortality came typhoid fever, which caused 542, or nearly 8 per cent., of the deaths from all causes, showing an increase of 304 upon the number in the previous year. The death-rate from this disease in Queensland has steadily increased from 0·20 per 1000 in 1880, to 0·63 in 1882, 0·89 in 1883, and 1·82 in 1884. This disease was nearly eight times as fatal in Queensland last year as in England; this was doubtless in some measure due to the drought from which the colony suffered in 1884, leading to the use of water from impure and contaminated sources of supply. With the example of old and more densely populated countries to guide them, it is discouraging to find that the settlers in new countries are not taking the necessary means to prevent the fouling of watercourses, which inevitably leads to such mortality from filth diseases as that from which Queensland is now suffering so severely. As regards mortality from typhoid fever, the other Australian colonies do not show much more favourably than Queensland. In Mr. Hayter's Statistical Year-book for 1883-84 it appears that the death-rate per 1000 from this disease in the year 1882 was equal to 0·53 per 1000 in Victoria, 0·56 in New South Wales, and 0·50 in South Australia. In England the rate from this disease did not exceed 0·23, and was considerably less than half the rate that prevailed in each of the four Australian colonies above mentioned.

METROPOLITAN SEWAGE DISPOSAL.

THE Metropolitan Board of Works are proposing to expend a further sum in respect of deodorisation works for the treatment of sewage, and are evidently hoping that the sludge will be used by farmers, and that the Board will be saved the expense of carrying it out to sea. Dr. Voelcker's opinion is said to have led to this hope, and it would undoubtedly be a great boon to the metropolis if its refuse should be a source of profit; but the project is not very encouraging. It is believed that of seventeen shillings per one hundred tons given as the theoretical value of town sewage, only two shillings lay in the suspended matter, and hence, as the recent Royal Commission has pointed out, the precipitated solids could, at the best, represent only about one-eighth of the value of the original sewage. London will not, however, begrudge the expenditure of money if its river can be freed from pollution. This is the first consideration, and is an absolute necessity; and it is better not to dwell too much upon profit which must, at the best, be of a very doubtful character.

ERYSIPELAS AND ITS TREATMENT.

SOME of the commonest diseases are among the most instructive. Colds, if studied in their various degrees and distribution, would teach many a lesson of perverted action and its control. Functional nervous diseases, often so tiresome in their deceptive complexity, would attract and perhaps requite attention in a greater measure than they now do if their processes were better known and more amenable to treatment. A more general if a simpler concern than in the latter instance attaches to the consideration of such a disease as erysipelas; the stages, causes, kinds, and cure explain themselves from day to day to each and every practitioner. There has been some confusion nevertheless with regard to the nature of erysipelas. Certain septic inoculations have been found to give rise to it and not others, and it has thus been laid under a sweeping accusation of septic origin which is only partially justified. There can be no doubt that cases guiltless of any germ infection are very common, and that, as stated some time ago by Mr. Hutchinson at the Hunterian Society, ordinary idiopathic erysipelas, in which no connexion can be traced with gangrene, hospitalism, or any known contagious disease, is to be viewed as purely inflammatory and often of local origin. Heat, cold, or a mechanical irritant applied at the surface suffices to produce it. In a slight degree, and from these causes alone, this action surrounds the healthy wound and covers the acute abscess. Such cases are often mere colds in the skin, and are easily tractable when their primary character is early recognised and treated. They are ever-present denials of the imagination that there is a specific germ of erysipelas. It is true that at a later stage, when bullæ have formed and burst, new septic powers may show themselves at the discharging spot. Such a result, however, is not to be dreaded under pure atmospheric conditions, and when it appears it is the sign of a break and a departure from the type of the morbid process till then operative. Infection has been implanted, but it was not initial. So far we have had to do, therefore, with mere vaso-motor disturbance and effusion—a state allied to catarrh, but beneath the skin, and maintained by the irritant effect of inflammation, which is itself the outcome of a mechanical force or a change of temperature. The advent of contagion at this or the primary stage (where a similar process is septic from the beginning) introduces peculiar conditions. Not only is there a causal difference; there is also a corresponding and a marked difference in the quality of the morbid change itself. More rapid and intense, quickly involving the deeper cellular tissue, soon followed by glandular swelling in the lines of lymphatic vessels, and by local subcutaneous abscess if allowed to go thus far, it exaggerates all the evidences of its simpler prototype and adds constitutional symptoms severer and more speedily severe. The morbid poison which is now at work is rapidly multiplying itself and infecting from its primary seat the whole course of the vascular system. Its own proper and contagious virulence is added to the irritation of inflammatory change, and its consequences are in proportion more hurtful and uncontrollable than in the idiopathic form of erysipelas. We have not spoken of such forms of this disease as arise from the presence in the surface lymphatics of non-vital poisonous matters. Here also the same anatomical structures as are involved in septicæmia are to a varying extent implicated. Cases of this kind show the same local and glandular disturbances, the same tedious and painful course, and, though primarily far more hopeful, may, by involving deep parts in the diseased action, and by superadded infection from without, become septic and end fatally. There is not space at our disposal to discuss all possible points of treatment which arise out of these observations. From simpler cases in which the exciting cause is comparatively unimportant and easily removable, we pass to others in which it is the chief and constant factor, and is difficult to reach. From a state of mere vascular tension, which is most amenable to depressants, febrifuges, and local sedative applications, we must turn to conditions where antiseptics, tonics, opiates, stimulants, and the knife are the prevailing remedies. There has been too little recognition of the varied nature of erysipelas in its therapeutic history. The routine use of iron, tonics, and stimulants, adhered to by some practitioners even in the earlier stages of the idiopathic variety, might be amended with advantage. A general use of iodine applications would be equally unwise, in our opinion, however advantageous in a later stage, when the integument is brawny and at parts broken by sloughing erosions. It should clearly be our first duty to seek out the primary excitant, and this will chiefly guide us in diagnosis of the type, and our judgment of the force, constitutional probabilities, and treatment of the disease.

CONTINENTAL GIRLS' SCHOOL.

IT is a matter of great difficulty to obtain sufficient reliable information upon which to make a selection from the numberless girls' schools of all grades and degrees of efficiency which are thrust before a parent's notice, for it does not follow in the least that social degree and educational efficiency go together, any more than purity of thought and grace of manner. The difficulty increases when the selection has to be made from among continental girls' schools, for, whatever may be said to the contrary, the tone of an English girl before she leaves her home for school is of the purest type, and as a rule is so maintained through her school life. There are risks, however, to the moral tone as well as to the physical health during the period of girlhood as well as boyhood, and these dangers may permeate school life. The best safeguard is efficiency in the head of the school, and this efficiency should not be confined to education alone. An acquaintance with the physical requirements of girlhood, such as is acquired by the mother of a family, on which to base attention to those deviations from health which are apt to occur during the period of a girl's school life is of paramount importance. With a view to meet these difficulties a lady is about to open an educational home for girls in Berlin. To qualify her for this responsibility, she has undergone a special training at one of the London hospitals for children. Berlin, as is well known, affords the greatest educational advantages, and when these can be combined with an English home, under the direction of an English lady especially trained for the purpose, parents have all the requirements of a foreign educational home for their daughters.

ARTIFICIAL PERFUMES.

CONFECTIONERS and manufacturers of liqueurs are in the habit of employing various artificial perfumes, which in chemical language are such bodies as amylic valerianate, amylic butyrate, ethylic butyrate, propylic ether, and caprylic alcohol. The odour and flavour of the apple, the pear, the pineapple, the strawberry, and the raspberry can thus be imitated. These imitations not only remove the necessity for the use of the natural fruits, but are far less expensive, and, besides having a perfect similitude with them, give the appropriate flavour in a more accentuated form. MM. Poincaré and Vallois have sought to ascertain whether these artificially prepared perfumes possess poisonous properties by injecting them under the skin of animals, as well as by introducing them into the stomach. Dogs and guinea-pigs can withstand even large doses of these substances when injected under the skin; but these animals can be poisoned

by sufficiently large doses, and then the symptoms set in rapidly. The most constant toxic symptom was great prostration, which was followed in a variable time by coma. These phenomena were less marked in the dog than the guinea-pig. All the animals were troubled with violent nasal irritation and sneezing, and distressed breathing was always evidenced by over-action of the respiratory muscles. An excessive secretion of mucus from the bronchial tubes was also noticed. Notwithstanding the gravity of the symptoms, the majority of the animals recovered. Chronic poisoning with the artificial perfumes was not followed by any characteristic effects, the chief morbid appearances being congestion, swelling, and ecchymoses of the gastro-intestinal mucous membrane. The practical outcome of these experiments is to sanction the use of infinitesimal doses such as are already employed for artificial flavouring of aliments.

PUBLIC VACCINATION.

THE Taunton Board of Guardians are adopting a course of action that will not commend itself to the good sense of the medical profession. They have advertised for a public vaccinator, but have received only one application, and this from a gentleman who possesses only a surgical diploma. It is true he has also an American degree, but Transatlantic diplomas cannot be regarded in this country as trustworthy substitutes for British medical qualifications, and the Local Government Board, acting in the interest of the many who will have to depend upon the skill and knowledge of the holder of the office, cannot accept this as sufficient evidence of fitness to act as public vaccinator. Nevertheless, the Taunton guardians have determined to appoint this gentleman, and it only remains for the Local Government Board to refuse to confirm their decision. It is surely not asking too much that the authorities upon whom devolves the duty of enforcing vaccination should require their officer to be legally qualified for the post, and their best opportunity for this purpose is to see that he possesses both medical and surgical qualifications. It is difficult to understand how only one candidate has applied for the office; probably the advertisement has been overlooked, and the reasonable course is to advertise again. It cannot be thought there is no sufficiently qualified man in Taunton willing to undertake the duties of public vaccinator.

HOSTELS FOR MEDICAL STUDENTS.

THE social life of young men is, perhaps, a matter too little provided for in any class or calling at the present time. There is with most youths an interval of comparative relief of tension between the school period and the stage at which the harness of future occupation is definitely buckled on. The interval is a critical one for many. It entails, and must entail, a double assumption of increased personal liberty and responsibility in external affairs. It also implies the formation of character and of principle by minds not yet too wary, in the absence of home influences which have hitherto guided them. Yet many of these influences are helpful to every man. They form collectively the attractive power of a wholesome social life and of true culture; and the restraints which they impose are those of reason and experience, not of tyrannous custom. It is with the view of keeping within touch of this home life the often isolated student of medicine that Dr. Evatt has advocated the establishment of medical hostels in connexion with schools of medicine. He justly says that a life in lodgings in the metropolis, where social intercourse is for many medical students a rarity, and where supervision is unknown, is apt to have a damaging effect alike on the development of character and on professional study. He imputes to this cause and to the idle habits it induces the frequent failure to pass examinations in due course. The need of every medical school in London, he says, is a "superintendent of studies," whose duty it would be to register class attendance, to grant leave of absence at times, to report upon the progress of students, to supervise lodgings, and be generally responsible for the school discipline. This, it seems to us, is more than we want. Supervision of lodgings, if these were unconnected with the school, would probably be impossible. Reports on progress, and so forth, under the same conditions, would not be readily tolerated. If, however, some residential club could be instituted exclusively for medical students and administered by the college authorities, it might be possible to substitute for the cheerless freedom of student life in lodgings something like home comfort not unduly hampered by supervision. The experiment is worth a trial, and, if successful, would probably pay well.

COCAINE IN EYE OPERATIONS.

As a further addition to our knowledge of the inconveniences occasionally arising from the use of cocaine in ophthalmic practice, Dr. L. da Fonseca states in the *Archivo Ophtalmotherapico*, of Lisbon, that in cases where there is keratitis cocaine sometimes causes hypopion, or at all events increases it; also that in the extraction of soft or semi-soft cataracts it is more difficult to get rid of the cortical parts than when cocaine has not been used. The author's explanation of this latter difficulty is that the "seat" of the eyeball being diminished by the cocaine, so that the condition is nearly that of the eye of a corpse, there is less elasticity in the surrounding tissues, and so the expulsion of the lens is not assisted as it ordinarily is. The most liquid portions are evacuated with the aqueous humour, but those which have more consistency, being gelatinous or glutinous, tend to adhere to the posterior surface of the iris, and the operator is unable to determine by inspection of the portions he has got away whether any more remain behind.

THE WEST LONDON HOSPITAL.

A PUBLIC meeting was held on the evening of Dec. 11th, at the Kensington Town Hall, to consider the question of the continuance or closing of this hospital. The Marquis of Lorne occupied the chair, and many influential gentlemen were present. The circular convening the meeting stated that the hospital, which has 101 beds, is burdened with a debt of £8000 on account of new buildings, while the cost of its maintenance is some £1500 a year more than its income. The chairman, in opening the proceedings, explained that it must not be thought that the hospital had been extravagant, for the building fund had been the cause of the deficit of £8000. He was quite certain that anyone who would take the trouble to go and see the hospital would be quite convinced that not a single farthing of unnecessary expense had been incurred. It would be seen from a comparison with other hospitals that the accommodation, though excellent of its kind and adequate, was no more than adequate. Though it was but a small hospital, it served a very wide area, taking in patients from districts as far removed as Barnes, Mortlake, and Acton. During the last year from that area no less than 300 accidents had been treated. In the general work there had been 1200 in-patients, while no less than 14,000 persons had received assistance as out-patients. These were very eloquent statistics, and absolutely conclusive as to the necessity for increased subscriptions for the purpose of sustaining the hospital. Resolutions were passed expressing the wish of the meeting that there should be no closing of the hospital, either wholly or in part, and that there should be no curtailing of the assistance now

afforded to the sick poor by that valuable institution until, at all events, strenuous efforts should have been made to avoid so disastrous a calamity, and pledging the meeting to support the hospital by means of increased subscriptions and donations. We are glad to add that a considerable amount of pecuniary support was promised during the course of the proceedings. Now that political excitement is beginning to cool down, and we are approaching a season of the year peculiarly associated with charity and fellow-feeling, we are sure that, attention having been directed to the matter, a hospital will not be allowed to die for want of funds.

TABES DORSALIS AND DIABETES.

AT a meeting of the Gesellschaft der Charité-Aerzte, Dr. Oppenheim showed a case of tabes dorsalis, complicated by diabetes (*Berl. Klin. Woch.*, Dec. 7th). The patient was a female thirty-six years of age; and in addition to the ordinary tabetic symptoms, there were also anæsthesia in the region of the fifth nerve, with loss of taste on the anterior half of the tongue, gastric and laryngeal crises, with derangement of the vocal cords described by Krause as ataxy, and rapidity of pulse. As the case advanced the patient began to complain of thirst, dryness of skin and throat, with polyuria; the urine previously having been below the normal amount. On examination the urine was found to contain 0·7 to 1·3 per cent. of sugar, as well as albumen, the specific gravity being 1012 to 1015. It was suggested that the supervention of the glycosuria was a further proof of the involvement of the medulla, to which the trigeminal anæsthesia and gastric crises were also probably due. The association was, however, very rare, but both the author and other physicians referred to cases of disseminated sclerosis with diabetes. Dr. Senator pointed out that diabetes and tabes had some symptoms in common, such as neuralgia, Westphal's sign, &c., so that in an early stage diagnosis might be difficult.

"MAY CHILDREN GO BAREFOOT WITHOUT INJURY?"

THIS question is every now and again proposed for discussion; and, when it is so, we are compelled to give the same answer. On physiological grounds it is manifestly a sound practice to accustom children to develop the circulatory and muscular systems of the lower extremities, precisely as those of the hand are developed, by free use and exposure. It is not supposed to be either necessary or desirable that children should wear gloves for hygienic purposes. When the hands of little folk are thus decorated, the parental idea is confessedly to give them what is conventionally regarded as a genteel appearance. No one thinks a child ought to be protected from the weather so far as its hands are concerned. On the contrary, it is recognised that the upper extremities should be kept warm by exercise and habitual exposure. Precisely the same view holds good with regard to the lower extremities. Contact with bodies that abstract heat, even more than the earth abstracts it, is an almost constant condition of child-life. In short, it is entirely in deference to fashion and the usages of society that children wear foot coverings. There is much to be said in favour of a more natural practice. The foot is an organ of wondrous complexity, regarded as a bony and muscular apparatus. It is, moreover, provided with nerves and bloodvessels of especial intricacy. The softest and most flexible shoe to a very great extent, and a boot almost entirely, reduces this organ to the character of a jointed block with little self-movement. Obviously this reduction must detract not only from the efficiency of the foot, but of the organism as a whole. In one respect too commonly overlooked we think this reduction of the foot to a jointed block is especially injurious—namely, the limitation of the ordinary capacity, and exceptional dilatability, of the vascular system which results. A study of the effects of drawing blood to the extremities by special appliances for medical purposes should place this matter in a clear light. If the bloodvessels of the foot and leg are fully developed, as they can only be when the foot is habitually exposed, the quantity of blood which the lower extremities can be made to receive, and if need be attract for a time, is very considerable. Returning to the immediate subject before us, we can only say that children who are allowed to go barefooted enjoy almost perfect immunity from the danger of "cold" by accidental chilling of the feet, and they are altogether healthier and happier than those who, in obedience to the usages of social life, have their lower extremities permanently invalided, and, so to say, carefully swathed and put away in rigid cases. As regards the poorer classes of children, there can be no sort of doubt in the mind of anyone that it is incomparably better they should go barefooted than wear boots that let in the wet and stockings that are nearly always damp and foul.

"INTUBATION" OF THE LARYNX.

TRACHEOTOMY will at no distant date be superseded in a great measure by the simple, safe, and bloodless operation of "intubation" of the larynx. Such is the opinion of Dr. Waxham, who read a paper on the subject before the Chicago Medical Society in October. This operation of intubation of the larynx, as now performed, is said to be due entirely to the patient investigation of Dr. O'Dwyer of New York. The latest improvements consist in having the tubes made with the head larger and directed somewhat backwards, and with the shoulders in the middle of the tube, not rising abruptly from the body, but consisting simply of a gradual increase in the circumference of the tube of this portion. The operation of intubation, in order to be performed rapidly and efficiently, requires practice on the cadaver. Sometimes an anæsthetic is employed to facilitate the introduction of the tube. Dr. Waxham reports five cases of croup treated by this method. Of this number only one recovered, and another died six days after intubation from pneumonia, the result of unhygienic surroundings. All the cases, with one exception, were unfavourable both in regard to age and type of disease.

AN EPIDEMIC OF MUMPS IN RUSSIA.

WE are accustomed to hear mumps spoken of under several different names, but it would scarcely be possible to find sixteen synonyms for this disease, as is the case, according to Dr. Burtseff, in Russia. This fact, combined with the statements to be found in text-books of the mild and harmless character of the affection, has probably tended to diminish the number of epidemics described in the literature of the subject. Thus Dr. Troitski, who wrote an elaborate paper on mumps two years ago, could only find records of twelve epidemics in Russia. He, however, collected statistics of no less than 207 epidemics occurring in different countries during the eighteenth and nineteenth centuries; the greatest of all being that occurring in the army of the United States in 1862 and 1863, comprising 24,645 cases, though, strictly speaking, these were referable not to one but to several epidemics. The other great epidemics were that of 1799, described by Harless, in which there were 800 cases; that of 1837, described by Leitzen, comprising 645 cases; and Mangor's epidemic in 1771 and 1772 of 300 cases. Dr. Burtseff now gives in the *Vrach* an account of an epidemic of "Periparotitis," which lasted from January to June 1885, in which there were 260 cases. The earliest cases occurred in the country.

The disease then appeared amongst the pupils of a church school on their return from the Christmas holidays; it then spread to a college, where it was very severe; and, through the medium of the students living in the town, it was afterwards conveyed to the pupils of the girls' gymnasium and other schools, and also to the peasants of surrounding villages. Of the total 260 cases, 170 were males and 90 females, 147 being scholars or students. The ages of those attacked varied from seven months to sixty years, 75 being between five and ten years, 109 between ten and fifteen, and 21 between fifteen and twenty. The disease very rarely attacks children under two years of age, Troitski having only been able to find 4 such cases recorded. In this epidemic, however, there were no less than 5. Amongst elderly people there were also some cases, 4 being between fifty-five and sixty, and 2 between sixty and sixty-five. In January 32 cases occurred, in February 55, in March 82, in April 42, in May 27, and in June 22. Complications were observed in more than two-thirds of the cases, the statistics of these being as follows: inflammations of the conjunctiva 5, acute otitis 86, urethritis 5, bubo 2, acute laryngitis 6, fetid purulent catarrh 1, iritis 1, suppurating adenitis 16, orchitis 5, acute bronchitis 17, articular rheumatism 1—making 190 complicated cases against 70 simple cases.

CHRISTMAS AND THE HOSPITALS.

WE sincerely commend hospitals to the benevolent at this season. Their need is painfully set forth in the appeals which are to be seen in the newspapers, and can be imagined with only the slightest effort. Let those who are to enjoy Christmas in happy homes do their best to make the inmates of the hospitals happy, and to abate the cares of anxious treasurers who have to keep these great institutions open. Some people, even benevolent people, treat hospitals with a strange want of thought, as if the food, and beds, and nurses needed by the patients were rained down from heaven.

FORGING CERTIFICATES OF MATRICULATION.

A MEDICAL student of Belfast, at the Ulster assizes, has been found guilty of forging a certificate of matriculation in the Royal University of Ireland. He was sentenced to six months' imprisonment. The sentence would have been more severe but for the state of the prisoner's health and the fact that he had made important disclosures to the Public Prosecutor. There is reason to believe that fraudulent certificates are not so rare as many think, and any well-exposed instances are a public advantage.

THE SPLEEN.

WRITING in the *Revue Bibliographique Universelle des Sciences Médicales*, M. Phisalix concludes that the essential function of the spleen is the formation of blood-corpuscles. The splenic cells analogous to those of ordinary connective tissue multiply by division, become detached from the splenic reticulum and form white and red blood discs in the cavities of the splenic pulp. The spleen may be considered from a histological point of view as a modified connective tissue, adapted from its embryonic period to the formation of blood-corpuscles.

STATIC ELECTRICITY IN AMBLYOPIA.

THE Barcelona Ophthalmic *Boletin* contains an account by Don Luis Barraquer of some very satisfactory results he has obtained by employing static electricity produced by Carré's machine in cases of amblyopia due to nicotism and to hysteria. He has made use of galvanism (one to two milliampères) also, but he finds that static electricity will often succeed where galvanism fails. Care must be taken first to test the susceptibility of the patient by a cautious use of the machine, as in some women a hysterical attack is sometimes induced by a sudden strong application of static electricity. In one case, where the subject was a man aged forty-eight, and the cause excessive smoking, the vision was, when the first examination took place, only 0·1. By means of two sittings with galvanic treatment this was raised to 0·2. Static electricity was then substituted, and after several sittings the vision became normal.

VASCULAR DISEASES IN ANIMALS.

A VERY interesting contribution to the study of comparative pathology was made by Mr. Bland Sutton to the last meeting of the Pathological Society. We must refer our readers to the report of the meeting for an account of this gentleman's observations, which are founded on an exceedingly large personal experience. Mr. Sutton has, we believe, examined the viscera of about 7000 animals. The main feature of his latest communication was the comparative rarity of vascular disease, including aneurysm in vertebrate animals. The liability of wild animals to suffer from parasitic disease was another well-established fact, and ought, as Mr. Sutton remarked, to make us thankful that our taste lies more in the way of cooked than of raw food.

URINARY AID TO DIAGNOSIS.

URINE is first treated with an acidulated solution of sulfanilin acid. The mixture is then rendered alkaline by the addition of ammonia and allowed to stand twenty-four hours, when a greenish-coloured deposit of phosphates occurs. This reaction is seldom met with except in the urine of cases of typhus, typhoid fever, and measles. Ehrlich devised this test, and believes that it has also a prognostic significance in certain cases of chronic phthisis and pneumonia. Dr. Dana suggested that the reaction might be used to differentiate the early stage of typhoid fever from malarial fevers and acute tuberculosis.

A COMMITTEE has been formed, with Sir Edwin Saunders as chairman and the following gentlemen as members—Mr. H. Royes Bell, Mr. Edward Bellamy, Mr. Thomas Gaddes, Lord Alfred Paget, Mr. W. Rose, Dr. Brodie Sewell, Mr. Henry Smith, and Mr. J. S. Turner,—in order to present Mr. Oakley Coles with a testimonial from his old friends and colleagues on his retirement from the dental profession. Contributions should be forwarded to the treasurer, Mr. Charles Vasey, 5, Cavendish-place, W., before the end of December, 1885.

AT an ordinary meeting of the Metropolitan Board of Works on the 14th inst., the Works and General Purposes Committee was authorised to expend a further sum of £3260 in respect of the deodorisation works for the treatment of sewage in progress at Crossness pumping station, and to invite tenders for the supply of 2000 tons of manganate of soda, 1000 tons of sulphuric acid, and 100 tons of caustic soda for the purposes of deodorisation and treatment of sewage during next year.

AN extraordinary general meeting of the members of University College, London, was held on the 12th inst. to consider a proposal recommended by the Council for giving the professorial body (the Senate) a more direct representation on the Council. Opposed by Dr. Wood of Lincoln's-inn, and supported by Mr. Cozens-Hardy, Sir George Young, Professors Carey Foster and Croom-Robertson, and others, the motion proposed in accordance with the Council's recommendation was, on a division, carried by a large majority.

MR. MARTIN MILES, a physician who practised at Stantonbury and Wolverton, died suddenly at the former place on the 10th inst. Whilst visiting a patient he was seized with an apoplectic fit, from which he expired in about twenty minutes. Mr. Miles was sixty years of age, and had practised in the neighbourhood for more than twenty years.

ON the 13th inst., M. Pasteur inoculated in the presence of M. Gomot, the Minister of Agriculture, forty persons who had been bitten by dogs with attenuated virus of rabies. On the 16th inst. a man who was recently bitten by a mad dog left New York *en route* for Paris, where he will be placed under the care of M. Pasteur.

AN epidemic of what is supposed to be cholera is reported to have broken out on board the Queensland line steamer *Dorunda*, which arrived at Brisbane on the 14th inst. There had, up to that date, been twenty cases and five deaths.

Pharmacology and Therapeutics.

DANAINE.

AT the séance of the Académie Française, held on November 9th, MM. Edouard Heckel and F. Schlagdenhoffen gave a detailed description of a well-known vulnerary obtained from the islands of Réunion, Maurice, Rodriguez, and Madagascar, named by the French colonists Liane jaune or Liane bœuf. Its botanical name is Danais fragrans. It belongs to the natural order Rubiaceæ, and is a quickly growing climbing plant, the root of which when fresh exudes abundantly a beautiful yellow juice. From time immemorial it has been employed as an excellent vulnerary in the Mascarene Islands. The fresh juice is applied to wounds, and causes rapid cicatrisation. The decoction of the root is also employed as a tonic and a febrifuge. The authors of the paper have investigated the alkaloid of the root, to which M. Bourdon, in his inaugural thesis, gave the name of Danaïdine. They find that the medicinal agent is a substance to which they have applied the term Danaine. It is coloured yellow, and has been known from remote times as a dye.

SULPHATE OF SPARTEINE.

Sparteine is an alkaloid obtained from a kind of furze named Sparticum scoparium. M. Germain Sée has employed the sulphate of sparteine as a remedy in heart disease, M. Laborde having previously investigated its physiological action on animals. Three characteristic physiological effects have been observed after the administration of the sulphate. The first effect is an improvement in the action of the heart and pulse where this is possible; in this respect it is said to have a more decided, prompt, and lasting influence than either digitalis or convallamarine. The second result observed is the regulation of the rhythm of an irregularly acting heart; in this effect it is said to have no rival. The third operation of the drug is one of increasing the rate of the cardiac contractions, making a slow pulse more frequent; thus acting like belladonna. These results are manifest an hour or so after the administration of the drug, and last three or four days after its discontinuance. The general strength of the system is improved and the breathing becomes easier. A diuretic influence has not been noted in the moderate doses hitherto employed. The therapeutic indications are sufficiently plain from the above-mentioned facts.

SALICYLATE OF LITHINE IN RHEUMATISM.

Physicians are acquainted with certain forms of rheumatism that prove rebellious to treatment by salicylate of soda. For some of these cases M. Vulpian has employed large doses of salicylate of lithia. Salicylate of quinine has proved useful in some cases of subacute and chronic rheumatism. The lithic salt may be prescribed in the same doses as the sodic, though it contains proportionally more salicylic acid; this difference is insufficient, however, to explain the difference in physiological action. Salicylate of lithia is said not to cause noises in the ears, but a simple deafness, with headache, giddiness, and intestinal disturbance. Diarrhœa and colic, though rarely caused, do not disappear until the salicylate of lithia has been altogether discontinued.

DRY DRESSINGS FOR ECZEMAS.

Dr. Thomas C. Smith of Washington, in a recent paper read before the Medical Society of the District of Columbia, advocated the use of absorbent powder in cases of eczema facialis and capitis, excoriations, deep varicose ulcers of the leg, &c., in cases where formerly he used to employ lotions, ointments, &c. The general formula for such a powder, with such variations, of course, as may be indicated, is as follows: Zinci oxyd., ℥iv.; acid tannic, ℥ss.; acid carbolic cryst., grs. viij.; amyl pulv., ℥iij p.; M. Boracic acid is sometimes used, but bismuth seldom. The crusts are not to be removed by poultices or water, but the powder is to be applied freely to its edges. Warm water is to be used for cleansing purposes.

HYPNONE.

MM. Dujardin-Beaumetz and Bardet have asserted that phenylmethylacetone possesses powerful hypnotic properties. Doses of ·05 to ·15 of a gramme have been found to produce profound sleep, and it is thought that in delirium from drink the soporific effect is more marked than that of chloral hydrate or paraldehyde. Acetone is eliminated with the expired breath, a rather disagreeable result. Death of a guinea-pig in gradually induced coma was caused by the subcutaneous injection of ·5 to 1 gramme of this drug, which it is proposed to call "hypnone."

LANTANIN, A PERUVIAN ANTIPYRETIC.

A new antipyretic, which is said to be superior to quinine, has been found by Drs. Negrete and Buiza, of Peru, in a South American plant, Lantana Braziliensi. According to *El Correo Farmacéutico*, the alkaloid lantanin has been administered to thirty-two patients suffering from fevers of different kinds and degrees, with satisfactory results. It is said also to be better borne by delicate stomachs than quinine. The dose recommended is one grain and a half every two hours, but as much as half a drachm may be given during the twenty-four hours.

A POWERFUL HÆMOSTATIC.

A curious and interesting discovery is reported to have been made in Columbia, which, if confirmed, will be valuable to surgeons. A shrub which is called there "aliza" exudes a juice which is so powerful a hæmostatic that when a knife is smeared with it, and used for operating purposes, the largest vessels may be severed without any hæmorrhage. It is also stated in the South American medical journal from which we quote that hæmorrhage (epistaxis?) is produced by inhaling the scent of the female plant.

ALGIN.

Algin is the residual product of the preparation of iodine from certain marine algæ by the wet method. It resembles albumen, with the exception that it is not coagulated by heat. It forms alginates with metals; the alkaline and earthy alkaline alginates are soluble, but the other salts are insoluble. The double alginates are easy of preparation, and almost all of them very soluble. Algin has some alimentary value; it may be used in place of gum arabic in the preparation of various dietetic and medicinal products.

PHYTOLACCA DECANDRA.

The fluid extract of this plant is used every three or four hours in four- to six-minim doses for internal administration in orchitis. A salve made of the extract mixed with extract of belladonna is also rubbed into the inflamed part. The colouring matter of the fruits is employed for various purposes, such as staining wool and pigmenting wines. The fruits, leaves, and roots are the parts used for medicinal purposes. The root has antisyphilitic and antiscorbutic properties. The young plant is eaten as salad, and is innocuous.

ROSOLENE.

Rosolene is an oily-looking liquid that is soluble in ether, carbon disulphide, and essential oils. It is always neutral, and never turns rancid. M. Serrant avers that it promotes the healing of wounds, being antiseptic and stimulant. It also serves the same purpose as ordinary oils and fats, and has already been employed with success in the extraction of the perfumes of certain flowers; its property of not becoming rancid being here a great advantage.

THE CASE OF DR. BRADLEY: PRESENTATION BY THE MEDICAL PROFESSION.

ON Friday, Dec. 11th, the medical profession entertained Dr. Bradley, of Chesterfield and Brimington, to a banquet, and presented him with an address and purse of 400 guineas. Dr. Bradley's case will be very well remembered by our readers. He was convicted last November at the Leicester Assizes, before Lord Chief Justice Coleridge, of an attempt to commit a criminal assault upon a patient, and was sentenced to two years' imprisonment with hard labour. It was believed by the medical profession that the evidence failed to support the charge, and that due weight had not been attached to the fact that prosecutrix had from her childhood been subject to epileptic fits, and was therefore liable to delusions. The matter was taken up by the medical press, and influential memorials were presented to Sir William Harcourt, the late Home Secretary, urging for an inquiry. It was, however, not until a change of Government took place that the efforts proved successful. Sir Richard Cross made a careful investigation, and last July he recommended the release of Dr. Bradley, in whose behalf an appeal for subscriptions was commenced. So great was the interest taken by the profession in the case that it was decided to present the proceeds of the appeal in such a manner as to give a marked and public expression to the views of those who had sympathised with him. Sheffield was chosen as the most suitable place, and a medical dinner took place, as already stated. Dr. M. de Bartolomé, of Sheffield, presided, having Dr. Bradley on his right hand. There were also present Dr. Balthazar Foster, M.P., President of the Council of the British Medical Association; Mr. C. G. Wheelhouse, Leeds; Mr. Lawson Tait, Birmingham; the Rev. J. J. Dyson, Sheffield; Mr. Bluett, Chesterfield; Drs. Willey, Sinclair White, Martin, Inkster, Dyson, Cleaver, Keeling, and W. R. Thomas; Messrs W. F. Favell, Benson, J. Hall, Reckless, Coombe, A. Jackson, Skinner, Leach, R. J. Pye-Smith, Johnston, and S. Snell, Sheffield; Mr. Browning, Oughtibridge; Mr. Richard Jeffreys and Mr. Shea, Chesterfield.

The usual loyal and patriotic toasts were given and enthusiatically honoured.

Dr. BALTHAZAR FOSTER, M.P., then, in an eloquent speech, the length of which precludes full production in our columns, reviewed the circumstances of the accusation against, and the trial, conviction, and release of, Dr. Bradley. He said that to go through a horrible punishment such as Dr. Bradley had suffered, to go through those terrible weeks of agony before he was tried; to be cast in a prison suffering from an unmerited stigma, and to bear during long months the feeling that he had lost his character and his honour, was a punishment which no word of his could adequately express. It was a position terrible to contemplate even in imagination, and yet they had amongst them one who had gone through the reality. There were some natures to whom troubles like this are the furnace through which they pass in order to be developed, and strong natures are often better for adversity; for adversity sometimes produces in a strong nature a better man than would have been developed under more happy conditions. He prayed from his heart that this terrible misery which had come on Dr. Bradley, which must have scarred his very soul and seared his very nature, might, after all, be a blessing to him, develop his character, and turn his life, as it were, to nobler and higher aims than he possibly could have conceived before. In conclusion, Dr. Forster alluded to the faulty state of the law, which did not provide for compensation being awarded to those who by miscarriage of justice have wrongfully suffered punishment.

Mr. WHEELHOUSE said he was there to hold out, on behalf of his own section of the profession, the right hand of fellowship to Dr. Bradley. He felt sure that in Leeds and the surrounding district, which in a sense he might be said to represent, there were no two medical men who did not believe him to be absolutely and entirely innocent. He argued that the crime of which Dr. Bradley was accused was one alike physically and physiologically impossible under the circumstances given in evidence; and that, not finding Dr. Bradley guilty of the actual crime charged, the jury ought to have completely acquitted him. He referred to certain steps which were taken to bolster up the case, which he strongly condemned; and whilst he endorsed every word that Dr. Foster had said as to the suffering which Dr. Bradley had undergone, he desired also to add a few words expressive of sympathy with Mrs. Bradley. He expressed his earnest hope that her health, much broken down, as he learned, by the agony of the trial through which she had been called upon to pass, might soon be thoroughly restored, and that she would accept this presentation as a message from them, and as an assurance that they believed her husband to be absolutely stainless and pure. Might their health, their strength, and prosperity be restored to both; and might such wealth as, under God's blessing, they could attain to, prosper in the future.

Mr. JEFFREYS then read a copy of the address to be presented to Dr. Bradley, which was as follows:—

We present this address to Dr. David Bradley, along with a purse of 400 guineas, in the name of a large and influential portion of the medical profession, as a mark of deep sympathy with him under the severe and wholly unmerited suffering which he has had to bear in consequence of the miscarriage of justice in dealing with an offensive accusation to which he has been subjected. We deeply regret that any court of justice should have thought fit, on evidence so inadequate, to brand the name and blast the prospects of a medical man whose character had hitherto been blameless. Our conviction of his innocence has been largely shared by the medical and public Press, Dr. Bradley's cause having been warmly espoused by THE LANCET, *British Medical Journal*, *Medical Times and Gazette*, *Medical Press and Circular*, and by other public journals. Petitions in Dr. Bradley's favour have been sent to the Home Office from Birmingham, Nottingham, Sheffield, Derby, Newcastle, and other places, largely and influentially signed, and bearing the strongest testimony to the deep sense of indignation roused throughout the profession by the treatment which Dr. Bradley has received. The petitions have been signed by no fewer than 1000 names, including those of nearly all the leading men in the districts from which they have been sent. In the neighbourhood where Dr. Bradley was living when this calamity befel him, all his brother practitioners, without exception, have signified their belief in his innocence, and have aided in the efforts made in his favour. From the same neighbourhood a lay petition has also been presented signed by a large number of the patients, friends, and acquaintances of Dr. Bradley. In London a warm feeling of sympathy has been declared by physicians and surgeons of the highest standing, and manifested by their generous and prompt contributions to the fund raised on Dr. Bradley's behalf. In presenting this address to him, we raise our emphatic and indignant protest against the ready credence which the law has given, in his case, to a form of accusation very easy to make, but not always easy to disprove. We do this for our own sakes, because medical men in the daily discharge of their duties, which are often of a delicate character, are exposed, more than other men, to have such charges brought against them. We protest also on public grounds, since it is detrimental to the interests of society that such duties should be rendered more difficult than they naturally are, and because it is even more deplorable that the innocent should suffer than that the guilty should escape. We are fully aware that the tardy and inadequate measure of justice which has at length been dealt out to Dr. Bradley can in no way atone for the cruel wrong which has been done to him, and we are sensible that no action on our part can make amends to him for the suffering and loss he has had to bear. In offering to him and to his family this token of our sincerest sympathy, we at the same time declare our full belief in his honourable and unsullied character, both as a medical practitioner and a private gentleman; and we wish him most heartily a happy and successful career in the future.

(Signed)

WILLIAM JENNER, M.D.	London.
BALTHAZAR W. FOSTER, M.D., M.P.	Birmingham.
LAWSON TAIT, F.R.C.S.	
WILLIAM OGLE, M.D.	Derby.
W. CLIFFORD ALLBUTT, F.R.C.S.	Leeds.
C. G. WHEELHOUSE, F.R.C.S.	
W. H. RANSOM, M.D.	Nottingham.
CHARLES BELL TAYLOR, M.D.	
M. MARTINDALE BARTOLOMÉ, M.D.	Sheffield.
WILLIAM F. FAVELL.	

Dr. FOSTER then made the formal presentation to Dr. Bradley of the above address and a cheque for 400 guineas, and concluded by proposing a vote of thanks to Mr. Jeffreys for his services in connexion with the raising of the testimonial.

Mr. RICE (Derby) seconded the vote of thanks to Mr. Jeffreys, which was enthusiastically carried.

Mr. JEFFREYS suitably responded, and read a letter from Sir William Jenner, who was the first to suggest the idea of an appeal for subscriptions.

Mr. W. F. FAVELL gave "The Visitors," to which Dr. BLUETT responded.

Votes of thanks were passed to the supporters and subscribers of the fund, to the lay and professional press, and the members of Parliament who took up the case.

"The Health of the Chairman," proposed by Dr. BRADLEY, brought the proceedings to a close.

VACCINATION OFFICERS' ASSOCIATION.—Surgeon-Major R. Pringle, M.D., late Bengal Army, is to read a paper to-day (Saturday) at 2.30 P.M., at the Charing-cross Hospital Medical School, on "State Vaccination."

HEALTH AND THE ELECTRIC LIGHT.

THE following is an abstract of a lecture delivered at the Parkes Museum of Hygiene, on Dec. 10th, by ERIC STUART BRUCE, M.A. Oxon., M.S.A.:—

The advance of modern civilisation demands an extended use of artificial light, and requires equally that that light should possess certain qualities. In ancient civilisation business was confined to the hours of daylight; the hours of wakefulness were only extended by the ancients for relaxation and conviviality; the pressure of modern necessities requires nocturnal labour. Candles and oil lamps were known to the ancients, the lamps being artistic in form but deficient in scientific construction. The scientific development of artificial light did not commence until the close of the last century. The argand burner showed the capabilities of oil as an illuminant, but the discovery of coal gas worked a revolution in the history of illumination. It differed principally from other illuminants in the fact that it could be supplied from a central station. The requirements as conducive to health of an artificial light should be: (1) It should not be a source of impurity to the atmosphere; (2) it should heat the atmosphere as little as possible; (3) it should be a brilliant white light; (4) it should be perfectly steady; (5) it should be cleanly; (6) it should be in no way a source of danger. Most of these requirements are not met by the forms of artificial light generally in use. All lights which are dependent on combustion at the burner are sources of impurity to the atmosphere. The combustion of gas in an ordinary burner has as much injurious effect upon the air as the respiratory organs of six or seven persons. The effect on health of breathing an impoverished and poisoned atmosphere can be observed in consumption or other hospitals. The electric incandescent lamp permits of the only light where we have perfect incandescence without appreciable combustion in the lamp. The independence of surroundings of the incandescent lamp, arising from the carbon filament being enclosed in a vacuum, makes the light invaluable for domestic use. The idea of the incandescent lamp dates back as far as 1845, but until the researches of Mr. Crookes had resulted in the attainment of improved vacua, the idea could not be made practical. The other health requirements of an artificial light—such as an inappreciable heat, purity and brilliancy of colour, steadiness of light, and immunity of danger from fire—are all met by the incandescent lamp. The present depression in the electrical market may be traced to certain causes: the experimental nature of the earlier work, the consequent prejudices of the public, certain drawbacks of the present Electric Lighting Act; also to reckless speculation and the very natural enmity of the gas shareholders—barriers to progress which must be overcome in time by the advance of knowledge.

MEAT FROM CONSUMPTIVE ANIMALS AS HUMAN FOOD.

A NEW and important point in connexion with the sale or the offering for sale of diseased meat came before the Dudley magistrates on the 9th inst. On that day a butcher carrying on business at Dudley, was charged by the sanitary inspector of the borough with having in his possession ready dressed for sale, two pieces of beef which were unfit for the food of man, the same being affected with phthisis.

The defendant pleaded not guilty. Evidence having been given respecting the discovery and seizure of the meat,

Mr. Abraham Green, M.R.C.V.S., borough inspector, was next examined. He said that shortly before nine o'clock on the morning of Oct. 9th he visited the defendant's slaughterhouse, and found two quarters of beef there. It had not the colour that good meat ought to have, being darker and looking like the flesh of an animal that had not been slaughtered. Having formed that opinion, he asked for the lungs, in order to strengthen it. To his surprise, he found them studded with tubercular deposits varying from the size of a pea to a hen's egg. The nodules could be plainly seen from the outside, and he found hundreds of them. He opened the lungs, and he at once saw that the animal was in an advanced stage of consumption. The meat in question, with all the symptoms mentioned, could not possibly be wholesome. The milk from such an animal would affect people and transmit disease, and he believed that the meat from such an animal, if eaten, would do the same mischief. This cow was not fit to eat because she had tuberculosis.

Mr. Daniel Timmins, surgeon and medical officer of health for the borough, was the next witness, and he corroborated Mr. Green in every particular. He also expressed his full concurrence in the theory that an animal so badly diseased as the one in question was, if eaten, bound to communicate disease to those using the flesh for such a purpose.

For the defence, Mr. James Blakeway, M.R.C.V.S., of Stourbridge, said that he saw the cow on Oct. 7th, and found her in very good condition—far better, indeed, than he should expect a cow in an advanced stage of consumption. She had recently calved, and was in the first stage of milk fever. On the following Thursday she was no better, and he sent his brother to see her. In his opinion she was not so far advanced in milk fever as to render her unfit for food, and he should have joined his brother in his recommendation to kill her for food. After the cow was killed he inspected the flesh, and found the lungs affected with tuberculosis. But the tubercles were enclosed in a cyst, and did not affect the lungs. The chest showed no sign of tuberculosis, and it always does so in an advanced stage of the disease. In his opinion, from what he saw of the lungs and the lining of the chest, there was not sufficient disease to render the whole carcase unfit for food.

Mr. John Blakeway, M.R.C.V.S., brother of the last witness, corroborated the above, and added that he advised Smith, the owner, to have the cow slaughtered, believing she was in a fit state for food. On Oct. 8th he was asked for a certificate, and he gave one, saying she was fit for food. He had not seen anything to cause him to alter his opinion.

Mr. Thomas Chambers, M.R.C.V.S., said that he had heard the state of milk fever in which the animal was, and considered she was fit for human food. The cheesy deposit in the lungs was not more than two or three months' standing. It was semi-fluid, but he did not think it was enough to condemn the flesh; it was a question of degree, and in his opinion it had not reached the dangerous point. After hearing Mr. Green's evidence, he was still of opinion the meat was fit for food. He had backed his opinion by having a piece cooked and eating it.

The magistrates inflicted a fine of £20 and costs on each summons, making £40 and costs, or two months' imprisonment. They also allowed Mr. Green and Mr. Timmins one guinea each.

QUEEN'S COLLEGE, BIRMINGHAM.

WE have received the following letter:—

"The Warden of Queen's College, Birmingham, begs to draw the attention of the Editor of THE LANCET to a paragraph from the Birmingham correspondent in the number for Dec. 5th last, headed 'Queen's College, Birmingham, and the Recent Elections,' which reflects seriously upon his conduct. He requests that the Editor will give as wide publicity to his denial of the statements therein made as he did (without inquiring of him) of the charges against him. He considers it unfair that the Editor of a paper such as THE LANCET should give to a personal enemy or to a political opponent the opportunity of making charges against him which his accuser could not substantiate in a court of law.

"Dec. 11th, 1885."

We forwarded a copy of the above to our correspondent in Birmingham, and the following is his reply;—

"My remarks were based upon grounds neither political nor personal, but were directed solely in the interests of Queen's College as an educational institution. Further inquiry confirms the accuracy of my remarks, and affirms the fact that the Warden did address the students in the quadrangle of Queen's College on essentially political subjects, urging them to use their influence for a certain candidate. The noble candidate and his wife were the subjects of an ovation in the same quarters."

We are content to leave the matter in the hands of the Council of the College, feeling assured that if the observations of the local press are correct, they will be inclined to exercise their right of criticism.

AN AMBULANCE CORPS FOR IRELAND.

AT the invitation of the medical authorities at Trinity College, Dublin, Surgeon-Major Evatt and Mr. Cantlie proceeded to Dublin on Friday, Dec. 11th, where they addressed a meeting of students. Professor Haughton was in the chair, and there were present, amongst others, Professors Bennett and Cunningham. The lecturers pointed out the advantages to be gained by knowing ambulance work in all its phases. They advocated a knowledge of hospital administration for medical men, whereby they might obtain a greater hold upon their hospitals and command more respect thereby in the councils of management. Professor Haughton pointed out the advantages to the community of students being trained in such work. Amidst great enthusiasm, it was resolved to form a company for learning ambulance work, under the charge of Professor Cunningham. In the evening, Messrs. Evatt and Cantlie were entertained by the Medico-Chirurgical Society at the College of Surgeons. They there again, at a numerously attended meeting, advocated a training for the civil practitioner such as is given in the army, whereby they may be more useful in their hospital councils, and raise the position of the doctor throughout the country generally by giving him a greater command of the institutions to which he belongs. In every other country than Great Britain, it was remarked, the doctors are responsible for the hospital, but in Great Britain they are not allowed to be responsible. The two visitors were entertained at breakfast at the Zoological Society's Gardens in the Phœnix-park on Saturday morning, and at 10 o'clock on Saturday Surgeon-Major Evatt addressed a meeting of students at the Carmichael School of Medicine.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5554 births and 3464 deaths were registered during the week ending Dec. 12th. The annual death-rate in these towns, which had been equal to 21·3 and 20·2 per 1000 in the preceding two weeks, was last week 20·3. During the first ten weeks of the current quarter the death-rate in these towns averaged only 19·3 per 1000, which was no less than 2·7 below the mean rate in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 15·3 in Bradford, 15·9 in Brighton, 16·9 in Leicester, and 17·5 in Sunderland. The rates in the other towns ranged upwards to 24·6 in Liverpool, 25·2 in Oldham, 27·5 in Plymouth, and 31·8 in Bolton. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had steadily increased in the previous six weeks from 273 to 385, declined again last week to 352; they included 111 from whooping-cough, 109 from measles, 42 from scarlet fever, 32 from "fever" (principally enteric), 29 from diphtheria, 24 from diarrhœa, and 5 from small-pox. No death from any of these principal zymotic diseases was recorded last week either in Birkenhead or in Huddersfield; whereas they caused the highest death-rates in Liverpool, Salford, and Bolton. The greatest mortality from whooping-cough occurred in Portsmouth and Bolton; from measles in Nottingham, Salford, and Oldham; scarlet fever in Leeds and Plymouth; and "fever" in Newcastle-upon-Tyne and Norwich. The 29 deaths from diphtheria included 20 in London and 5 in Liverpool. Small-pox caused 7 deaths in London and its outer ring (including 2 in the metropolitan asylum hospital ship *Atlas*, moored in the Thames off Dartford), 2 in Bristol, and 2 in Liverpool. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had declined in the preceding five weeks from 90 to 69, further fell to 56 on Saturday last; the admissions were but 6 last week, against 12 and 13 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 454, 480, and 410 in the preceding three weeks, were 413 last week, and 72 below the corrected average. The causes of 79, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bradford, Portsmouth, Brighton, Newcastle-upon-Tyne, and in four other smaller towns. The largest proportions of uncertified deaths were recorded in Bristol, Hull, Bolton, and Leicester.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·5 and 24·4 per 1000 in the preceding two weeks, declined again to 23·7 in the week ending the 12th inst., and exceeded by 3·4 the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 13·9 in Dundee and 18·3 in Greenock, to 28·2 in Perth, 28·7 in Glasgow, and 30·8 in Paisley. The 578 deaths in the eight towns showed a decline of 18 from the number in the previous week, and included 17 which were referred to diarrhœa, 12 to whooping-cough, 2 to "fever" (typhus, enteric, or simple), 9 to scarlet fever, 6 to diphtheria, and 1 to chicken-pox; in all, 56 deaths resulted from these principal zymotic diseases, against 44 and 49 in the previous two weeks. These 56 deaths were equal to an annual rate of 2·3 per 1000, which were 0·2 above the mean rate from the same diseases in the twenty-eight English towns. The 17 deaths attributed to diarrhœa showed a further slight increase upon the numbers in the preceding two weeks, and included 8 in Glasgow. The 12 deaths from whooping-cough, of which 8 occurred in Glasgow, corresponded with the number in the previous week. The 9 deaths referred to "fever" showed a further increase upon the numbers in recent weeks; they included 4 in Glasgow and 2 in Edinburgh. Seven of the 9 fatal cases of scarlet fever and 3 of the 6 of diphtheria were returned in Glasgow. The fatal case of chicken-pox (which, contrary to the practice of the English registration officer, is still classed to small-pox in Scotland) occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had increased in the preceding seven weeks from 83 to 175, further rose last week to 178. The causes of 93, or 16 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had fallen in the previous two weeks to 25·1 and 24·7 per 1000, rose again to 31·0 in the week ending Dec. 12th. During the first ten weeks of the current quarter the death-rate in the city averaged 25·6 per 1000, the mean rate during the same period not exceeding 18·8 in London and 18·4 in Edinburgh. The 210 deaths in Dublin last week showed an increase of 43 upon the number returned in the previous week, and included 23 which were referred to the principal zymotic diseases, against 10 and 15 in the previous two weeks; 8 resulted from whooping-cough, 7 from "fever" (typhus, enteric, or simple), 4 from scarlet fever, 3 from diarrhœa, 1 from measles, and not one either from small-pox or diphtheria. These 23 deaths were equal to an annual rate of 3·4 per 1000, the rate from the same diseases last week being 2·2 in London and 1·2 in Edinburgh. The 8 deaths from whooping-cough, corresponded with the number in the previous week, while the fatal cases of "fever," scarlet fever, and diarrhœa showed an increase upon recent weekly numbers. Eight inquest cases and 7 deaths from violence were registered; and 58, or more than a quarter of the deaths, were recorded in public institutions. The deaths both of infants and of elderly persons showed a marked increase upon the numbers returned in the previous two weeks.

MORTALITY STATISTICS OF JAMAICA.

The Registrar-General of Jamaica, Mr. S. J. Smeeton, has issued the sixth annual report upon the registration of marriages, births, and deaths in Jamaica. Unfortunately, it refers to the abnormal year ending September, 1884, which destroys much of its value for comparative purposes. The exceptional emigration from Jamaica to the Isthmus of Panama, to meet the demand for labour on the canal, appears to have resulted in a temporary loss to the population of the island exceeding 20,000 persons. During 1883-4 nearly 35,000 persons left for the isthmus, and nearly 15,000 had returned. The loss of population from this cause during the year under notice exceeded the increase by excess of births over deaths; and, as the emigrants were almost exclusively adult males, they were equal to about one-fifth

of the male population at the reproductive ages. After correction of this disturbing cause the Jamaica population in 1883-4 was estimated at 591,819; the calculated birth-rate for the year being 36·1, showing a decline of 4·5 from the rate in the preceding year. The death-rate was equal to 22·7 per 1000, comparing very favourably with the rates prevailing in most of the other West Indian islands. Bearing in mind the tropical climate, and the noticeable fact that 59 per cent. of the children are illegitimate, the amount of infant mortality is comparatively low. The deaths of infants under one year of age did not exceed 16 per cent. of the recorded births. In some of the parishes, however, the rates of infant mortality were excessive; they were 18·6 in Kingston, 20·8 in St. James, and 23·6 in Trelawny. Another fact bears testimony to the favourable health condition of the island—namely, that more than 10 per cent. of the deaths were of persons aged upwards of seventy-five years. It is probable, however, that this proportion is somewhat unduly raised in the year under notice by the small number of deaths of young adults recorded in Jamaica, owing to the absence at Panama of so large a proportion of male adults. Very little confidence can be placed upon the causes of death in Jamaica, owing to the fact, again commented upon by the Registrar-General, that in nearly 90 per cent. of the deaths out of Kingston parish no medical evidence of the cause was forthcoming. It may be noted, however, that the 12,673 deaths in the island during the year included 1845 in which the assigned cause was "fever" (form undistinguished), 802 from diarrhœal diseases, and 109 from measles. The number of deaths referred to scarlet fever, diphtheria, and enteric fever were not numerous, and no deaths were reported from small-pox, typhus, or whooping-cough. It is to be hoped that measures may be taken to improve the nature of the evidence of causes of death, the unsatisfactory and untrustworthy character of the information on this point detracting much from the practical value of a health report for sanitary purposes.

THE SERVICES.

WAR OFFICE.—Coldstream Guards: Surgeon Jas. Magill, M.D., to be Surgeon-Major, vice C. C. Read, retired.

ARMY MEDICAL STAFF.—Brigade Surgeon Austin Jonas Ferguson is granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major Abraham William Bate, M.D., is granted retired pay, with the honorary rank of Brigade Surgeon.

INDIA OFFICE.—The Queen has approved of the following promotions among the officers of the Indian medical establishments made by the Governments in India:—Brigade Surgeon Henry Cook, M.D., of the Bombay Medical Establishment, to be Deputy Surgeon-General (supernumerary). Surgeons Alexander John Willcocks, Timothy Moloney, Charles Washington Shirley Deakin, Henry Kellock McKay, and Frederick Robert Swaine, of the Bengal Medical Establishment; Surgeons Hazlett Allison and Thomas James Hackett Wilkins, of the Madras Medical Establishment; and Surgeon Matthew Lorenz Bartholomeusz, of the Bombay Medical Establishment, to be Surgeons-Major.

Surgeon-Major O. T. Duke has been appointed to the medical charge of the Boundary Commission, vice Surgeon Owen, C.I.E., appointed Surgeon to Sir F. Roberts, Commander-in-Chief.

ADMIRALTY.—The following appointments have been made:—Staff Surgeon R. Fitzgerald, to the *Britannia*, additional, for temporary service; and Surgeon Timothy J. Crowley, to the *Espoir*.

ARTILLERY VOLUNTEERS.—1st Banff: J. Irvine McArthur, Gent., M.B., to be Acting Surgeon.—1st Caithness: Honorary Assistant-Surgeon David McGregor Sutherland, M.D., resigns his commission.—3rd Middlesex: Surgeon John Cook, M.D., is granted the honorary rank of Surgeon-Major.

RIFLE VOLUNTEERS.—2nd Volunteer Battalion, the Lincolnshire Regiment: Acting Surgeon George Frederick England to be Surgeon.—1st Stirlingshire: Surgeon and Honorary Surgeon-Major William Johnston resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement.—1st Volunteer Battalion, the Queen's (Royal West Surrey Regiment): Walter Rosser, Gent., M.D., to be Acting Surgeon.

Correspondence.

"Audi alteram partem."

THE FELLOWS AND MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—May I be allowed a few words of criticism on Mr. Godlee's letter, which appeared in your issue of the 14th ult. Several reasons are there stated why Members should be contented and not strive after any power in the management of the College; and amongst these reasons occurs that of the possession of one of the finest libraries in the world. True, but Mr. Godlee should in all fairness have added: "A library that is so restricted in its use as to be practically one of the poorest," for obviously the value of a library depends quite as much on the facilities offered for its use as on its collection of books. This library, of which Members are to be so proud, is open only thirty-seven hours in the week, of which twelve are in the busiest time of a medical man's day; even this short time is broken into by the College examinations, and in so irregular a manner that it becomes necessary to consult THE LANCET before going there to see if it is open or shut. Only a week or two back, owing to my journal being mislaid, I spent one hour and a quarter in going to the library and coming back. It was closed for examinations. Another advantage that Members are said to enjoy is the possession of a museum; but, when I worked there, if one touched a preparation or moved it round to see the back one was shouted at by the officials in terms more forcible than polite. Besides, there is the payment of the officials, by whom, so far as the entrance hall is concerned, I have been addressed more rudely than in any other college that I have been into, and this, even at a time when the possession of the membership should at least have secured me civility. These are advantages that no doubt the majority of Members fail to see. Whether giving the management of the College into the hands of the many, instead of, as at present, retaining it in those of the few, indeed very few, would not be a change for the better, remains to be seen, but at all events, it seems to me it would promise movement, an alteration much wanted.

I am, Sir, yours obediently,

Nov. 18th, 1885. R. W. GREENISH.

DISEASED MEAT.

To the Editor of THE LANCET.

SIR,—I have read with pleasure your annotation of Nov. 28th, on a lecture recently delivered by me to my class on the subject of diseased meat, and I venture now to ask you to allow me to so far intrude on your space as to show the medical profession how much need there is for the making of a special effort by all sanitarians—medical and veterinary alike—to induce the Legislature to initiate more stringent regulations than at present exist in connexion with the sale of milk and flesh from diseased animals. In the first place, I would like to direct attention to a fact little understood or realised by the members of the medical profession, but one which has a terrible meaning when fully taken cognisance of—viz., that a dairyman cannot be prosecuted for selling milk from any animal unless that animal is at the time the subject of a disease recognised by the Privy Council as contagious, and inasmuch as only the following maladies, cattle plague, foot-and-mouth disease, and pleuro-pneumonia, —are so recognised, it follows that a cow may be the subject of anthrax, rabies, tuberculosis, or any other similar affection, and her owner can dispose of her lactiferous products without let or hindrance. Granted that in anthrax and rabies the yield of milk is small and the risk of infection by ingestion remote, such a comforting assurance cannot be entertained in the light of our present knowledge in reference to tuberculosis. It is a well-known fact that phthisical cows in whose udders tuberculous processes are going on yield a comparatively large quantity of milk; and the further fact, that milk from animals so affected is charged with bacilli, is equally well known; but it is not so generally recognised that tubercular mammitis is of very frequent occurrence. Some years

ago I was of opinion that tubercular mammitis was comparatively infrequent. Of late years, whether from more accurate observation or from the fact that they have really became more common I know not, I have frequently met with them both in the living and dead animal. Perhaps the recital of some facts which have recently come under my notice may serve to direct the attention of sanitarians to this all-important subject. A few weeks since, while prosecuting my duties as veterinary inspector to the local authority of the city of Edinburgh, I was asked by one of my assistants to proceed to a street at a little distance from the cattle market to look at a cow that had been refused admittance by the market superintendent. I found a very good looking young cow, in good muscular condition, standing at the side of a street in a state of great exhaustion, and showing unmistakable signs of the existence of pulmonary and mammary tuberculous lesions; but the udder was overcharged with milk to such an extent as to lead to a very active overflow from every teat. What could I do? I had no power to seize the animal, nor could I prevent her from entering the market for the purposes of sale. On inquiry I found that the cow had been purchased at a public auction three weeks previous for £5, and after some consideration I decided to accept all responsibility attaching to the proceeding and ordered the cow to be taken to the abattoir. Post-mortem examination revealed one of the worst cases of pulmonary and mammary tuberculosis I have ever seen. Observe the sequel. Four minutes after I had sent this animal to the slaughter-house I found another cow in the market in an advanced stage of tuberculosis, giving, however, no milk; she was sold subsequently for 30s., and doubtless her flesh was chopped up for sausage-meat. About the same time I was asked by the market inspector to examine a large quantity of beef which had been seized in a sausage manufactory. A number of the pieces were liberally besprinkled with fibrous tubercle. Shortly afterwards I was walking through a yard devoted to the doubled purpose of a live and dead meat market, when I incidentally walked up to the carcase of a sow for the purpose of showing one of my young pupils the method usually adopted by butchers of disguising the carcases of nursing sows—viz., by stripping the teats with the fingers. On turning the abdominal section aside I discovered that every one of the mammæ was thickly bestudded with miliary tubercles. On meeting the market inspector shortly afterwards, I advised him to seize the carcase. This was done, and when it was cut up for the purpose of boiling it down, it was found that the whole of the dorsal vertebræ were tuberculous.

To-day I saw a cow sold by public auction with unmistakable signs of pulmonary and mammary tuberculosis. I saw two other cows standing in another yard waiting their turn to be sold; and on inspecting a sale byre I observed a short-horn cow in whose system the usual evidences of pulmonary and mammary tuberculosis existed. On inquiry I was informed that she was kept to supply milk for the family of the owner, as she was not considered fit for sale purposes. These are facts which require no further comment from me, and which, I think, justify me in saying that it is time steps were taken with the object of doing away with a great public scandal and a greater public danger.

My friend, Dr. Littlejohn, medical officer of health for the City, is conversant with the particulars of some of the cases I have here cited, and I am very pleased to be able to acknowledge that at all times he is ready to extend a helping hand to me in my researches in this direction.

Before concluding, I should like to direct attention to what I consider several misleading (unintentional doubtless on his part) statements made by Dr. Handford in an article published in your journal of November 28th and December 5th. 1. Mr. Handford says, "As they [domestic animals] produce no sputum, no tubercle bacilli are set free from the respiratory tract"; further on he says that the "presence of tubercle bacilli has been demonstrated in the breath of phthisical patients." His first observation assumes that sputa must be present to produce infection; his second, that the expired air is infective. But taken for granted that infection usually takes place through the medium of sputa, I would ask by what or on whose authority he bases his first statement? If cows do not spit, in the ordinary acceptation of the term, they very largely expectorate when suffering from bronchial or broncho-pneumonic affections; and even if they did not do this, there is frequently a copious discharge of a catarrhal nature in pulmonary tuberculosis from the nostrils; and further, the matter from the bronchial tubes, trachea, and larynx not so expelled is swallowed, and contaminates the grass through the medium of the fæces when animals are at pasture. But, putting all this aside, it is a well-known fact amongst veterinary surgeons that pulmonary tuberculosis is spread amongst cattle through the medium of the expired air from the lungs of phthisical patients. 2. In speaking of tubercular mammitis in cows, Dr. Handford states that it is of "exceptional occurrence." Unfortunately, he is very wide of the mark in making this statement, and I am afraid he has not read the very excellent paper on this subject recently published in some of the veterinary periodicals from the pen of Professor Bouy of the Copenhagen Veterinary School. 3. Dr. Handford refers to improperly cooked tuberculous flesh as if it were comparatively innocuous. Are sausages, I may ask, always properly cooked? I have already stated that I have seen beef besprinkled with miliary tubercles cut up for the purpose of being converted into these delicacies.

I am, Sir, yours obediently,

THOMAS WALLEY.

Royal Veterinary College, Edinburgh, Dec. 8th, 1885.

THE NATURE OF PERITYPHLITIS.

To the Editor of THE LANCET.

SIR,—At the last meeting of the Clinical Society, Mr. R. J. Godlee read a paper on a case of Suppuration around the Vermiform Appendix, under the care of Dr. Barlow and himself, in which he had performed the daring operation of opening the abdomen and draining the peritoneal cavity, with a very successful result. The discussion which followed turned almost entirely on the surgical aspects of the case. Had there been time, I should like to have alluded to the subject from a medical standpoint.

The case, if I mistake not, is one of a not uncommon class, generally described as perityphlitis (sometimes typhlitis, or inflammation of the cæcum), occurring most often in young adults of fairly good health, not usually phthisical or strumous. The affection is not specially preceded by constipation; it is acutely febrile in its nature; it commonly terminates in recovery; and it is very apt to recur more than once in the same individual. When it has caused death, suppuration is found around some part of the cæcum, especially, however, about the appendix; and this tube is sometimes found perforated. In some cases foreign bodies, concretions, or "hardened fæces" have been found in the appendix.

Thus far I have stated facts, all, I believe, readily substantiated. The experience of most practitioners will bear out many of them, and the records scattered through the medical periodicals (many of which I have gleaned from the invaluable "Digest") supply further proof. I may particularly refer to Dr. S. Fenwick's lecture on Perforation of the Appendix, which appeared in THE LANCET of last year.

What, then, is the cause of this perityphlitis? Some would say, the lodgment of foreign bodies in the appendix or the retention of fæces. But, according to Dr. Fenwick's statistics, in much less than one-half (55 out of 125 cases, including 14 of "hardened fæces") of the cases of fatal perforation is there any evidence of such lodgment found. Moreover, as he admits, in numerous instances in the post-mortem room the appendix is found after death to contain shot, seeds, lumbrici, &c., without any ill results having been apparent. I did not gather that in Mr. Godlee's case he was able to feel any solid body in the appendix, although he explored it with the finger. This cause, then, if it exists at all, is insufficient to account entirely for the disease. Nor am I prepared to offer any complete theory to explain its nature. But I wish to offer a suggestion. The appendix is thickly studded with lymphatic follicles, such as occur scattered over the cæcum, and in smaller numbers in the rest of the colon. They are identical with the solitary glands of the small intestine, and of the same structure as the agminated glands and the tonsils. The suggestion that I have to make is that perityphlitis is strictly analogous to quinsy. Quinsy is generally agreed to be a suppurative inflammation occurring in the connective tissue upon or beside one tonsil; perityphlitis is such an inflammation in the immediate neighbourhood of the lymphatic follicles, which form a dense lining to the appendix. Both are affections of adolescence,

or young adult life; both occur without obvious cause in the fairly healthy, not phthisical; both are attended with acute fever; both usually tend to recovery; both are very apt to recur. I submit that there is strong presumptive evidence of an analogy between these two affections.

I am of course aware that if this is granted, and perityphlitis is dubbed "abdominal quinsy," we are still far from discerning its true nature and cause, since quinsy itself is as yet largely an enigma.—I am, Sir, yours truly,

Finsbury-circus, Dec. 15th, 1885. R. HINGSTON FOX.

"DANGERS OF COCAINE."

To the Editor of THE LANCET.

SIR,—Your correspondent, Mr. Hodges, need scarcely have gone so far as Professor Hirschberg's clinic to learn the use of small quantities of corrosive sublimate, boracic, salicylic, carbolic, and other acids in preventing the development of fungoid growths in an aqueous solution of cocaine. Although these growths are objectionable, and tend ultimately to deteriorate the solution, I do not believe that they constitute dangers as regards suppuration. Dr. Bell Taylor's letter in THE LANCET of the 5th inst. would lead to the inference that there was some pathological relation between these fungi and the suppurative process; but, if there is no better evidence of it than that which he adduces, the danger of such solutions must be more imaginary than real. Are there any facts in pathology which warrant us in connecting suppuration with the development of vegetable fungi, such as are seen in these solutions? And do not these fungi, indeed, find a natural habitat in some antiseptic solutions, notably boracic acid? The quotation from Graefe's statistics, as Dr. Taylor quotes them, can have no scientific value. He says, "in one series he lost 5 per cent., in another 6 per cent., in another 4 per cent., in another 1 per cent."; but these are surely high figures if they represent losses from suppuration alone after cataract extraction. If they do not, of what value are the statistics at all as bearing upon this point? Surely a loss of 6 per cent. of cases from suppuration when using carbolic acid, the most powerful of all antiseptics, is an argument rather against antiseptics than in favour of corrosive sublimate. Dr. Taylor quotes de Wecker, and seems to adopt his views, "Que toute suppuration de la cornée est due à une infection de place"; nevertheless, we frequently see different forms of intraocular suppuration, which it would be difficult to assign to "une infection de place." Suppurative iritis, choroiditis, and hyalitis follow injuries unattended by breach of surface; why, then, should we always look for local infection in cases of suppuration in the cornea? In my private practice I have for a long time used solutions of cocaine mixed with some antiseptic, usually boracic acid. In the infirmary, until lately, I have not done so; but I am certain that, as regards suppuration after cataract extraction, it has not been influenced by differences in the solution, although in the case of the infirmary it was sometimes three or four weeks old. I am therefore sceptical of its dangers, and it will take more evidence before I can say "J'en suis absolutement persuadé." If it be a danger, it is one which is not peculiar to cocaine; it must be extended to belladonna, atropia, eserine, opium, and all other lotions having a vegetable basis. I am, Sir, yours truly,

C. S. JEAFFRESON,
Surgeon to the Northumberland and Durham Eye Infirmary.

Dec. 5th, 1885.

UNUSUAL VESICAL CALCULI.

To the Editor of THE LANCET.

SIR,—A few notes on some cases which have occurred in my practice at the Mayo Hospital in Jeypore may be of interest in connexion with your observations in THE LANCET of October 3rd on two unusually large urethral calculi, which were reported by a Russian surgeon.

In 1878, I removed a phosphatic stone, weighing 4½ ounces, less 30 grains, from the prostatic portion of the urethra of a gardener, a Hindoo, aged forty years. It measured 2½ in. by 2 in. by 1½ in., and a small staff could be passed over it into the bladder with some difficulty. It was only necessary to cut down upon the calculus through the perineum, which it distended, and to turn it out from its bed with the fingers. The rectum was slightly injured, but complete recovery took place in forty-three days. The patient suffered from frequent and painful erections, and had great pain in the testicles also, with hæmaturia. He had had much pain in coition, and for seven years there was no seminal discharge. The total duration of symptoms was twenty years.

In 1881, I had a curious case, in a boy aged fifteen years, who had suffered from symptoms of stone for three years. Three calculi, of the aggregate weight of 560 grains, were removed. No. 1, which was wholly in the penile portion of the urethra, fitted into a concavity in No. 2, which was in the prostatic part of the canal. No. 3 revolved in the lower part of No. 2, and projected back into the bladder. When admitted, the boy was much emaciated, but he was well in thirty-five days after the operation. His penis was unusually long.

In 1882, a prostatic calculus weighing 120 grains, and furnished with a curious hook, which projected into the urethra, was taken from a boy aged seven. He was discharged in a healthy condition in twenty days. He could only pass urine when on his hands and knees at the time of admission. His troubles began, as in so many cases here, after an attack of small-pox.

Two cases of a different nature may be added to the above, as they are of interest. Five ounces and a half of fragments of calculi were extracted from the bladder of a boy who had been in the habit of eating plaster from walls. His recovery was very rapid. A large stone, measuring 1⅝ in. by 1¼ in. by ⅞ in., was removed from a female by dilatation of the urethra, without any inconvenience ensuing.

I am, Sir, yours truly,

T. H. HENDLEY, Surg.-Maj., I.M.D.

Jeypore, Rajputana, India, October 26th, 1885.

URETHAN AS A HYPNOTIC IN CARDIAC DISEASE.

To the Editor of THE LANCET.

SIR,—I have felt, in common with most practitioners, the want of a hypnotic which may be given safely in the insomnia of cardiac disease, or of acute maladies like pneumonia, where the tendency to heart failure is a pressing danger. The numerous instances of death after chloral have sufficiently indicated its danger. I hoped paraldehyde might have proved of use, but in my hands it was a failure. Within the last week I have treated two cases of cardiac insomnia successfully by two-grain doses of urethan, given at bed-time, in solution in water. One of these was a case of aortic and mitral incompetence, with congestion of the lungs, hæmoptysis, pleural effusion, and œdema of the legs. The patient complained that as soon as he fell asleep he awoke with a dreadful feeling of suffocation, and for three nights he had had very little rest; but the last five nights he had slept comfortably by the aid of urethan, and his condition has generally improved in consequence. The other case is one of cardiac dilatation, with mitral incompetence; the heart's action is very feeble and irregular. The patient had not slept for several nights, but urethan has obtained for her comfortable sleep ever since she began to take it, four days ago. Urethan is a substance described by Kobart; its formula is $NH_2CO_2C_2H_5$; it was first used medically by von Jaksch of Vienna. He experimented with it first on animals, and found that no toxic effect occurred even when the drug was administered in the proportion of ·5 gramme for each kilogramme of the animal's weight. He relates two cases, one of endocarditis and mitral insufficiency, and the other of aneurysm, in which very troublesome insomnia was relieved by this drug. The dose he employed was gr. 7·7 (·5 gramme), but so far two grains have been quite sufficient for my patients. I am, Sir, yours obediently,

Birmingham, Dec. 8th, 1885. ROBERT SAUNDBY, M.D.

QUININE IN PNEUMONIA.

To the Editor of THE LANCET.

SIR,—The following case illustrates well the value of quinine as an antipyretic in pneumonia.

I was called to see a boy of fifteen, overgrown, thin, and very delicate in appearance. He had pain in the right side of the chest. The respiration was hurried and the pulse 120. His temperature when I first saw him was 104°; at a later

visit it had risen to 104·8°. He was left in charge of a night nurse, who had instructions to watch him, and to give a pill of three grains of quinine every two hours. The patient had a quiet night, and his morning temperature was found to be 96·4°, having fallen upwards of seven degrees in the night. Twelve grains of quinine were taken. Next morning the temperature was normal; on the evening of that day it rose to 100°, falling again to normal next day. There were variations during the next two days; on one occasion it reached 101°, falling next morning to 99°. There was no rise of temperature beyond that during the illness. The boy made a good recovery, and went home on the seventeenth day of his illness. About two-thirds of the right lung was affected, and respiration was slow in returning.

I am, Sir, yours truly,

Marlborough College, Dec. 11th, 1885. WALTER FERGUS, M.D.

MANCHESTER.

(From our own Correspondent.)

SEWAGE DISPOSAL.

THE proposal of the Health Committee of the Corporation, lately referred to in these columns, to purchase a large part of Carrington Moss, some 1100 acres in extent, for the disposal of the night-soil and refuse of part of the city, at a total cost of some £60,000, received the sanction and confirmation of the Council on Wednesday last. It is a bold attempt to deal with a very difficult problem, and the result thereof will be looked forward to with considerable interest. It seems that the corporation have acquired powers under the Ship Canal Act to construct a culvert along the banks of the canal for sewage purposes if they think fit, but it is doubtful now whether it will be necessary to make use of this power. Already some operations have been commenced in connexion with the canal; the course it is to take is being surveyed and laid out, and preliminary shafts are being sunk. The canal when made will undoubtedly have a very important bearing upon the sanitary condition of the Irwell, and it is more than probable that the pollution that now goes on in this river will have to be considerably abated. As a sign of the times and of the interest taken in these matters, it may be mentioned that at the recent ruridecanal conference held at Bowdon an interesting paper on the Clergy and Sanitary Administration was read by the Rev. C. V. Gorton.

WORK AT THE SOCIETIES.

Our Pathological Society since its severance from the parent Medical Society has shown much increased vigour; and an interesting feature this session has been the intercourse formed between it and its fellow Society of Liverpool, members having attended at each other's meetings, from which it may be hoped mutual advantage will result. At the monthly meeting last week of the North-Western Association of Medical Officers of Health, a paper was read on the Circular *versus* the Pavilion Form of Hospital. The subject, which lately was discussed rather fully in your columns by Mr. Burdett and Mr. Snell, did not have much additional light thrown upon it, as so few practical experiments have yet been made with the circular ward. It was the opinion of several speakers that the chief recommendation for the circular hospital was that it could be built upon a site ill adapted for the pavilion system.

THE EDINBURGH AND ST. ANDREWS UNIVERSITIES ELECTION.

By the time this is in the hands of your readers the election of a member of Parliament for the Universities of Edinburgh and St. Andrews will have taken place. Mr. Erichsen, the medical candidate, addressed a meeting here of the graduates of those universities, under the chairmanship of Mr. Hardie. A resolution was unanimously passed in support of his candidature. The only medical aspirant to Parliamentary honours in this neighbourhood was Dr. Peter Royle, who has suffered defeat at the hands of Sir Henry Roscoe, Professor of Chemistry in Owens College, who, it is safe to assume, enters Parliament more as a scientist than as a politician.

EXTENSION OF UNIVERSITY TEACHING.

A scheme was inaugurated on Friday last at Withington, one of our outlying suburbs, for the extension of university teaching in connexion with the Victoria University, on much the same lines as that which has for some time been carried on by Cambridge University. If it be successful it is intended to extend the scheme to other localities round Manchester. At the annual meeting of the Hospital Sunday and Saturday Fund it was announced that the Saturday collections had exceeded that of any previous years, having reached £3220. The grand total of the Saturday and Sunday collections was £8085, being an increase this year on the ordinary income of £427.

The authorities of the Consumption Hospital are appealing for funds to build a new out-patient department. At present this is very ill-provided for in a house in John-street. A site close by here has been secured, and this with the building is estimated to cost £4500, of which not much more than half has yet been raised.

Manchester, Dec. 17th.

EDINBURGH.

(From our own Correspondent)

THE UNIVERSITIES ELECTION.

THE four days' poll in this election commenced at eight o'clock on the morning of the 15th, at both Edinburgh and St. Andrews Universities. The voting papers which have been received during the last three weeks were, in the first place, opened and examined by the registrars in the presence of deputies appointed by the Vice-Chancellor of each university and of agents for each of the candidates. Voting was to be permitted to continue till 10 A.M. on Friday, Dec. 18th, when the poll closes, and it is expected that the result will be declared very shortly afterwards.

EDINBURGH HEALTH COMMITTEE.

The Health Committee of the Edinburgh Municipal Council, at a meeting held on Thursday, considered the monthly statement as to the health of the city submitted by Dr. Littlejohn, the medical officer of health. The death-rate for last month was at the rate of 17·28 per 1000 of the estimated population. The report of admissions to the fever hospital was also submitted, from which it appeared that there are now in hospital 20 cases of typhoid fever, 46 of scarlatina, 4 of small-pox, and 9 of erysipelas. Dr. Littlejohn then made a representation to the committee in favour of the reception of cases of whooping-cough into the Fever Hospital, this being the only infectious disease which is not treated by isolation in special hospital wards in this city. The proposal received the favourable consideration of the committee, but before coming to a decision on the matter they desired to be provided with a statement and tables showing the average mortality from this disease, and enumerating the facilities for isolation of such cases obtainable in the Fever Hospital, with an estimate of the cost of fitting up two special wards for the purpose. Such a report will be presented at an early meeting of the committee. The subject of clinical teaching in connexion with the fever wards also came up for discussion, application for facilities of teaching having been made by the Medical Faculty of the University and the teaching staff in the Extra-academical School. The question was remitted to the Hospital Committee to determine what arrangements are necessary for the visits of students to the hospital wards. It is to be hoped that some satisfactory solution of this question will be arrived at, for hitherto the facilities afforded to students anxious to apply themselves closely to the study of fevers have been meagre, and even these facilities, such as they were, have never been taken advantage of by more than a small percentage of students. If some regular course of instruction can now be arranged, there will be a great alteration in this respect, and much valuable teaching material will be utilised which has hitherto been neglected to a very considerable extent.

A CRIMEAN BULLET.

In one of the surgical wards of the Edinburgh Royal Infirmary Mr. A. G. Miller recently removed a Russian bullet from the neck of a man who had been suffering for thirty years from its presence. The patient was wounded at the battle of the Alma, after which he spent some time in the military hospital at Scutari, where an unsuccessful attempt

was made to remove the bullet. The wound, however, healed completely, and the patient served through the remainder of the campaign. Since leaving the army he has worked as a shoemaker, and has been often inconvenienced by the presence of the foreign body. Its removal presented no difficulties, and the patient has progressed satisfactorily.

Edinburgh, Dec. 17th.

IRELAND.

(From our own Correspondent.)

UNIVERSITY OF DUBLIN.

AT a meeting of the Senate to be held this week a recommendation will be received from the Provost and Senior Fellows that the degree of Doctor in Medicine be conferred (*honoris causâ*) upon Dr. Daniel J. Cunningham, Professor of Anatomy in the University.

ARTERIAL ANOMALIES.

Arterial anomalies exist very constantly, and there are but few subjects dissected which do not possess more or less variety in the origin and distribution of the various arteries. Last week in the dissecting-room of the Ledwich School of Medicine, I had an opportunity of examining a subject which possessed in its arterial branches peculiarities worth noticing. The thyroid axis and internal mammary arteries of the right side came off from the subclavian extenal to the scalenus anticus muscle; the middle meningeal of the same side was wanting, while the inferior dental, after coming off from the internal maxillary, bifurcated before entering the dental canal. The right lingual and superior thyroid came off by a common trunk, and the vertebral artery of the left side came from the transverse arch of the aorta close to the origin of the common carotid. This last anomaly, although mentioned by some anatomists as likely to occur, is, I believe, extremely rare.

THE FEES OF MEDICAL WITNESSES.

Recently, at the Cork Assizes, Mr. Justice O'Brien, addressing the Crown Solicitor, referred to the case of Dr. Pierce, of Limerick, who complained that he had received but six guineas for his attendance at the assizes. Dr. Pierce claimed three guineas a day and fifteen shillings a day expenses, but was allowed only two guineas a day without expenses, so that he received but one-half of this claim. Mr. Justice O'Brien said it was his intention to repay him, as he considered that two guineas a day to a professional man who came from a distant place was a wholly inadequate remuneration. It was, of course, the duty of any person holding an official position not to sanction undue extravagance, but the Treasury people, he said, had a very great opinion of their own powers, and they were constantly in the habit of asserting them, but he had a certain power of his own, and he could assert it also. He would direct that Dr. Pierce be paid three guineas a day as remuneration for his attendance, and fifteen shillings for his expenses; and if the Crown Solicitor had any difficulty in protecting his own interests, or was in fear of being surcharged, he might cause the Treasury to understand that he (Mr. Justice O'Brien) would not require the attendance there of any medical man from a distance at two guineas a day. The learned judge added that he would treat as contempt of court any attempt to dispute the carrying out of his orders by the Crown Solicitor. Medical witnesses, as a rule, receive inadequate remuneration for their evidence, and are so often treated with scant ceremony that it is gratifying to be able to record an instance to the contrary.

Dublin, Dec. 15th.

PARIS.

(From our own Correspondent.)

THE PERPETUAL SECRETARY OF THE ACADEMY OF SCIENCES AND M. PASTEUR.

I "ASSISTED," as the French say, at the meeting of the Institute on Thursday last which was held for the reception of M. Joseph Bertrand, perpetual secretary of the Academy of Sciences, who had just been elected member of the Académie Française in the room of M. J. B. Dumas (deceased). On these occasions the newly-elected member has to pronounce a eulogy on his immediate predecessor. In this M. Bertrand would have acquitted himself to the satisfaction of all parties had he said more of the subject of his panegyric and less of himself. The deficiency, however, was made up by M. Pasteur, who was appointed to welcome and to respond to M. Bertrand, which he did with great tact and oratorical eloquence, though he does not always shine in this respect, and brought out in relief the most eminent qualities of M. Dumas, from the time he started as an assistant to a chemist at Geneva, to the position he occupied at his death as Perpetual Secretary of the Academy of Sciences and Member of the Académie Française, the highest branch of the French Institute, and consequently the highest scientific and literary position one can attain in this country. M. Pasteur concluded his discourse with the following remarks, which I think worth translating: "If I may be permitted to finish with one of those general ideas that M. Dumas so loved to cherish, I would say that you and he were the personification of that which in our time only laborious lives can attain. True merit in true democracy is that which you both represent. True democracy is that which permits each individual to give his maximum of efforts in the world. An *employé* of a pharmacy at Alais, raising himself, by his work, to the presidency of the *savants* of the entire world—what a great example! Why is it that alongside this fertile democracy there should be another, sterile and dangerous, which—I do not know under what pretext of chimerical equality—dreams of absorbing and of annihilating the individual in the State. This false democracy has the taste, I may venture to say the creed, of mediocrity. All that which is superior to it is suspicious. In reversing the sense of a celebrated phrase of General Foy, one might define this democracy as the league of all those who would live without working, consume without producing, arrive at employments without being prepared for them, to honours without being worthy of them." The meeting was very largely attended, many distinguished visitors, both foreign and native, were present. It was quite an imposing sight to witness so large a number of *savants* assembled together, many of whom are octogenarians; and M. Chevreul, the eminent Academician, attracted much attention owing to his great age, he being in his 100th year. His features bore the marks of senility, yet there did not seem in reality much difference between him and men of seventy or eighty. He is quite hale, his intellect is scarcely impaired, and his hearing is evidently good, as I noticed that whenever his name was mentioned in the discourses in connexion with his important discoveries in chemistry, he gave a nod of assent, which was followed by the enthusiastic applause of the assembly.

HYDROPHOBIA.

That hydrophobia never originates spontaneously is an opinion that has been entertained from time immemorial, but Dr. Dujardin-Beaumetz imagines that he has had one case in a young man aged twenty-nine years, who died at the Hôtel Dieu on the 12th of November last with evident symptoms of hydrophobia, which he considered to be of spontaneous origin, as the patient denied ever having been bitten, and there was no scar or any other mark found on his body that would tend to refute his statement. There was some doubt entertained among the members of the Council of Hygiene and of Salubrity of the Seine, at which the case was reported, as the patient was epileptic, and used to have his attacks about once a week. But the crucial test of its having been a *bonâ-fide* case of rabies was furnished by M. Pasteur, who, having inoculated two rabbits with portions of the medulla oblongata of the patient, declared that he died from hydrophobia. As anticipated, M. Pasteur is invaded with solicitations, not only from all parts of Europe, but also from America, for the application of his special remedy for hydrophobia. Within the last five or six months he has had nearly 100 applications. He has, up to this date, inoculated sixty-eight persons, and nothing unfavourable has occurred.

Dr. Mathias Duval has been unanimously designated by the Professors of the Faculty of Medicine of Paris as successor to the late Professor Robin in the Chair of Histology.

Paris, Dec. 16th, 1885.

SCARLET FEVER is reported to be very prevalent in Skipton, and to be on the increase.

BERLIN.

(From our own Correspondent.)

INCREASE IN THE POPULATION OF BERLIN.

ON November 14th the population of Berlin amounted to 1,301,068, an increase of 1054 on the previous week. The number of births was 906:—Living: 425 males, 435 females; total, 860. Stillborn: 24 males, 22 females; together, 46. In the Royal Charité and Lying-in Hospital 47 children were born. Deceased (not including stillborn) were 543, of these, 279 were males and 264 were females. Of these, 155 were under one year of age, 100 were from one year to five years, 5 were up to fifteen years, 30 were between the ages of fifteen and twenty, 9 between twenty and thirty, 38 between thirty and forty, 53 between forty and sixty. The deaths from birth to five years of age were 46·96 per cent. of the entire deaths of the week. Of the children under one year of age, 44 died in the first month, 30 in the second, 14 in the third, 15 in the fourth, 8 in the fifth, 6 in the sixth, 38 in the seventh to the twelfth month. Of these, 31 were nourished with mother's milk, 1 with nurse milk, 68 with animal milk, 2 with milk surrogates, 20 with mixed food; of 33 the food is unknown. Causes of death were chiefly—phthisis, 74; pneumonia, 54; bronchial catarrh, 14; laryngitis, 22; fits, 32; apoplexy, 21; meningitis, 16; carcinoma, 15; weakness from old age, 18; general weakness, 32; consumption, 14; morbilli, 7; scarlatina, 9; diphtheria, 36; typhoid fever, 5; diarrhœa, 9; enteritis, 4; other diseases, 156; suicide, 5. The mortality of the week, calculated for the year, gives on an average 21·8 for every 1000 inhabitants of Berlin; for Breslau, 24·5; Frankfort-on-the-Main, 16·5; Cologne, 22·0; Dresden, 23·7; Munich, 23·4; Bremen, 26·5; Stuttgart, 19·2; Vienna, 23·4; Paris, 21·9; London, 19·9; Liverpool, 21·5. During the week the police received notice of 17 cases of typhoid fever, 115 of measles, 61 of scarlet fever, 187 of diphtheria, and 1 of small-pox. In nine of the large hospitals 822 patients were admitted; of these, 3 were cases of measles, 10 scarlet fever, 47 diphtheria, 7 typhoid, and 6 erysipelas; 127 died, or 23·4 per cent. of all the deaths of the week.

GENERAL MEETING OF THE BERLINER MEDICINISCHE GESELLSCHAFT.

At the general meeting of the Berlin Medical Association, on Dec. 2nd, 1885, the entire body of officers was again elected. President: Virchow. Vice-presidents: Henoch, Bardeleben, and Siegmund. Secretaries: B. Fraenkel, E. Küster, Senator, and Abraham. Treasurer: Klein. Librarian: Palk. A proposal that the necessary steps be taken towards obtaining the rights of corporation was carried by a large majority.

MEETING OF FELLOWS AND MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

A MEETING of Fellows and Members of the College of Surgeons, summoned by the Council, was held on Thursday last for the purpose of receiving a report from the President and Vice-Presidents with reference to the resolutions adopted at the meeting held on Oct. 29th, which was fully reported in our columns. After a long and somewhat exciting discussion, the following resolution, moved by Mr. Timothy Holmes and seconded by Mr. Gamgee, was carried by a large majority:—"That the answer of the Council is not satisfactory, and that the Council be respectfully requested to reconsider the subjects (1) of the representation of Members of the College of Surgeons; (2) of submitting for approval any alterations proposed to be made in the constitution or relations of the College, or in any of its bye-laws, to a meeting of the Fellows and Members."

AT a meeting of the Executive Committee of the Hull Hospital Sunday Fund on the 14th inst., it was reported that the receipts for this the twelfth year of collection had much improved on the previous two years, the total being £737 agalnst £365 in 1884.

Obituary.

ROBERT LAWSON, M.R.C.S., L.S.A.

MR. ROBERT LAWSON, whose premature death it was our painful duty to announce in our issue of December 5th occupied at the time of his decease the post of House Surgeon to St. Thomas's Hospital. After a short but honourable career, both as student and resident officer, he succumbed to a severe attack of scarlet fever, contracted in the hospital, and at the end of one short week of illness one of the most promising and industrious of students and most kindly and valued of friends quietly passed away.

Born at Winthank, St. Andrews, in 1861, Mr. Lawson in 1878 completed his general education at St. Andrews University, where, at Madras College, he took a gold medal for mathematics. In June, 1879, he passed the London Matriculation, and in the following year the Preliminary Scientific (M.B.) from Guy's Hospital, where he had entered for the special course. He commenced his studies at St. Thomas's in May, 1880, gained the First Entrance Science Scholarship at the commencement, and the William Tite Scholarship at the end of his first winter session. The summer session of 1881 saw him successful with the second College prize, which he again gained in the winter of 1882. He passed the Intermediate M.B. at the end of his second winter, and once more took the Second College prize in the winter of 1883. At the end of his fourth winter session (1884) he gained the Cheselden Medal for Surgery, Surgical Anatomy, and Operative Surgery, and was awarded the Treasurer's Gold Medal for general proficiency throughout his student career. He very soon doubly qualified as M.R.C.S. and L.S.A.; and in January, 1885, began his appointments in the hospital, filling the junior posts of Assistant House Physician and Assistant House Surgeon during the first six months of that year. In September, 1885, he was elected to the post of House Surgeon, which office he held at the time of his much-lamented death. He filled all his appointments with singular ability, through his energy, his thorough practical and theoretical knowledge, and the quiet but firm demeanour he always displayed. Quiet, unassuming, and courteous, he gained the friendship of his fellow-students, and the respect and confidence of his superiors, and it was only when the news of his untimely and somewhat sudden death spread over the hospital that it was felt how much it had lost both for the present and the future. A faithful and hard-working student, he combined with his unflinching industry a conscientious zeal for the profession he had adopted, and throughout his whole career, both in the school and in the hospital, he showed a promise of future usefulness and success which, unfortunately, was never to be realised. He died at the early age of twenty-four, leaving to his numerous friends the recollection of the esteem and friendship they had always felt for one who will long live in their memories.

GIUSEPPE PONZI.

THIS veteran physician and *savant* died on St. Andrew's Day in Rome, where for more than half a century he had lived and laboured as a practitioner, a lecturer, and a man of science.

Professor Ponzi was born eighty years ago, and prosecuted his studies first in the Collegio Romano and thereafter in the university, distinguishing himself greatly in natural history. His special career, however, was that of medicine, as Doctor in which he graduated. In 1832 he was appointed Demonstrator in Anatomy and coadjutor in the Museums of Zoology and Comparative Anatomy, both of which he so enriched and improved, particularly in classification, that he was rewarded for his services with the medal of the "bene-merentes." In 1837 the cholera visited Rome, and he devoted himself with characteristic energy to curing its victims and arresting its progress, till he himself succumbed to the malady, but, though abandoned for dead, he was recovered by what seemed at the time little short of a miracle. In 1838 he was promoted to the supplementary chair of Comparative Anatomy in the Roman University, and with a view to still further fitting himself for the post he

made a series of visits to the chief medical and scientific schools of England, France, Holland, and Belgium. On his return he fell under the ban of political ostracism, and, like Pantaleoni, Maggiorani, and Mazzoni, he had for a time to withdraw from the capital. Removed from his chair, he plunged by way of intellectual recreation into palæontology, till, becoming fascinated by the science, he extended his studies into the geology of the Italian peninsula, in which he ultimately rose to be the acknowledged master. In 1842 he became Professor of Anatomy and Physiology in the Sápienza (as the University of Rome is called), and did much to re-arrange the curriculum for the benefit of the students. Six years after, the revolutionary upheaval again detached him from his professional work, and again geology furnished him with a congenial solace.

It seemed as if politics were to determine the current of his mental forces towards the science in which he achieved his greatest triumphs. Shortly before his second exile in 1848 he had been elected Fellow of the Academy of the Lincei (the lynx-eyed)—the Roman equivalent of our Royal Society; and in 1854 he signalised his return to Rome by a brilliant study, in concert with Count de Rayneval and Monsignor Vanden-Ecke, of the fossils of the Monta Mario. He proposed to the Papal Government that in return for the grant of his magnificent geological collection it should establish a chair of Geology, and this, after much resistance, was finally conceded in 1864 by Pope Pius IX., who made him the first professor. The chair of Anatomy and Physiology continued to absorb, however, the most of his energies, till the professorship of Mineralogy fell vacant, and then, after twenty-two years' tenure of the Anatomico-Physiological Lectureship, he asked and obtained that of Mineralogy—henceforth to be combined with the chair of Geology under his sole direction. This twofold professorship he held till 1870, when the change of government caused the chair to be separated again, and he remained Professor of Geology alone.

From this time his record is one continuous succession of scientific honours conferred on him by Italian and European seats of learning. He was made President of the Pontifical Academy of the Nuovi Lincei, and in 1871 Member of the Commission for the Amelioration of the Roman Campagna. In 1873 he was Commissioner of the Congress of Anthropology and Prehistoric Antiquities in Bologna, and in the same year Vice-President of the Italian Association for the Advancement of Science, which held its sittings in Rome. In 1875 he received the Cross of Civil Merit of Savoy, and was elected Member of the Society of the Italian Forty. All this time he took an active and most useful part in municipal affairs, and sat on many committees of public and academic interest. In 1878 his health began to feel the strain of his prolonged and versatile work, and he restricted himself to the duties of his geological chair, to the superintendence of his museum, and to the periodical meetings of the Academy of the Lincei, of which he was now the dean. Nearly a hundred memoirs and monographs in the Transactions of learned bodies and in scientific periodicals attest his profound investigations in hygiene, geology, and the utilisation of the soil from an industrial and sanitary point of view. A selection of these is preparing for publication.

His funeral, which took place on Dec. 1st, was attended by representatives of every seat of learning in Italy, of the Alpine Club, of which he was the founder, and of the Senate of the kingdom, of which he was an illustrious member.

MEREDITH REDMAN, M.R.C.S., L.S.A.

WE have to record this week the death of Mr. Meredith Redman, of the city of Lincoln, which took place on the 8th inst. Born at Blythe on April 14th, 1816, he received his medical education at University College and Hospital, of which institution he was one of the earliest pupils. In 1838 he took the M.R.C.S., and in the following year the L.S.A. For upwards of forty-five years he practised in Lincoln, doing during the greater part of that time the largest obstetric practice in that town, having attended upwards of 11,000 cases of midwifery. He was the author of one or two small works on Digestion, and one on Anatomy, besides numerous contributions to medical and other literature; in later life he edited several works on prophetic subjects. During his career he held various public appointments; amongst others, he had been a member of the Town Council and a Poor-law guardian for many years. He was interred in the Lincoln Cemetery on Saturday last, December 12th, being followed by a large number of members of the Foresters' Club and of former patients.

E. ROUSE, M.R.C.S., L.S.A.

ON the 7th inst. the death occurred of Mr. Eusebius Rouse, of Cleverdon, Bradworthy. The deceased, after receiving his preliminary education at Liskeard and serving his apprenticeship with his elder brother, Mr. R. B. Rouse of Great Torrington, entered as a student at St. Bartholomew's Hospital, becoming a pupil of Lawrence and Abernethy. In 1833 he became a Member of the Royal College of Surgeons, and in 1836 obtained the Licence of the Society of Apothecaries. Immediately after qualifying, Mr. Rouse commenced practice at Pudford, in Devon, and twenty-nine years ago removed to Cleverdon, where he performed the duties of his profession until his retirement last Michaelmas. He was a keen sportsman, and will be much missed by the poor of the district in which he resided, to whom he had endeared himself by his genial sympathy and practical assistance.

Medical News.

UNIVERSITY OF CAMBRIDGE. — At Congregations held on the 9th and 16th inst., the following degrees were conferred:—

M.B.—Walter Fowler, Gonville and Caius; Fredk. W. Stericker, Clare.

B.S. — Walter Fowler, Gonville and Caius; Dudley Cox Trott, Gonville and Caius.

UNIVERSITY OF DURHAM.—At the recent examinations for degrees in Medicine and Surgery, the following satisfied the examiners:—

DOCTOR IN MEDICINE, FOR PRACTITIONERS OF FIFTEEN YEARS' STANDING.

Bodington, George Fowler, F.R.C.S., M.R.C.P.
Eustace, Edward, L.R.C.S., L.R.C.P.
Fennings, Allen, M.R.C.S., L.S.A., L.R.C.P. Edin.
Hembrough, John William, M.R.C.S., L.S.A.
MacCormic, John McGee, L.R.C.S., L.R.C.P.
Maguire, Thomas Stephen, L.K.Q.C.P.
Perkins, Whitfield, M.R.C.S., L.S.A.
Shepherd, Robert John, M.R.C.S., L.S.A.

DOCTOR IN MEDICINE (Essay).

Barley, David Henry, M.B., M.R.C.S.
Gordon, Thomas Elisha, M.B., M.R.C.S.
Mosse, Herbert Ryding, M.B., M.R.C.S.
Spicer, Frederick, M.B., M.R.C.S. Gold Medal.

BACHELOR IN MEDICINE (Essay.)

Wilkinson, Auburn, L.M.

MASTER IN SURGERY.

Roobbyer, Philip, M.B., M.R.C.S.
Hall, George Rome, M.B., College of Medicine, Newcastle.
Hart, A. H., M.R.C.S., L.R.C.P., Queen's College, Birmingham.
Reily, Alexander Yates, M.R.C.S., Middlesex Hospital.

BACHELOR IN MEDICINE (Second Examination).

Baigent, William, College of Medicine, Newcastle.
Barker, John, Edinburgh University and College of Medicine, Newcastle.
Biggam, William, College of Medicine, Newcastle.
Coad, John Edwin, College of Medicine, Newcastle.
Gayford, Charles, M.R.C.S., St. Bartholomew's Hospital.
Hart, A. H., M.R.C.S., L.R.C.P., Queen's College, Birmingham.
Heelis, Robert, M.R.C.S., L.R.C.P., St. Thomas's Hospital.
Lazenby, James Matthew, College of Medicine, Newcastle.
Lyth, Edgar Roe, College of Medicine, Newcastle.
Panton, John Edward, M.R.C.S., St. Bartholomew's Hospital.
*Platt, Henry Thomas, College of Medicine, Newcastle.
Reily, Alexander Yates, M.R.C.S., Middlesex Hospital.
Walker, Francis John, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital.
*Whyte, Alexander, M.R.C.S., College of Medicine, Newcastle, and St. George's Hospital.
Wightwick, Fallon P., M.R.C.S., L.R.C.P., Middlesex Hospital.
Williams-Freeman, John Peere, University College.

* Second-class Honours.

SOCIETY OF APOTHECARIES.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 10th inst.:—

Evans, Charles Hotham, M.R.C.S., Winchmore-hill.
Hope, George, M.R.C.S., Spring-gardens, Ventnor, Isle of Wight.

[In the list published last week of Members of the Royal College of Surgeons who passed the Final Examination for

the Fellowship, John Williams Batterham, M.B. Lond., should have been described as of the General Hospital, Wolverhampton, not "Birmingham."]

THE annual collections on behalf of the Hereford Hospital Sunday Fund were made on the 13th inst., in the various churches and chapels of that city.

THE Library of the Royal Medical and Chirurgical Society will be closed on Friday, December 25th, and re-opened on Tuesday, December 29th.

ON the 15th inst. the two new wards which have just been added to the Seacombe Cottage Hospital were formally opened in the presence of a large and influential assembly.

MEDICAL MAGISTRATE.—Lambert Hepenstal Ormsby, M.D., F.R.C.S., of Merrion-square West, and Sandymount House, county Dublin, has been appointed to the Commission of the Peace for county Dublin.

ADVICES from South America state that Dr. Freire of Rio de Janeiro has already inoculated 5000 persons in Brazil for the prevention of yellow fever, and that not one of this number has died of the disease, although the great bulk reside in centres of infection.

VACCINATION GRANTS.—Government grants for successful vaccination have been awarded to the following gentlemen:—Mr. W. Sutton Pratt, Weedon district of the Daventry Union; Mr. A. G. Evans, Towcester Union (fifth time); Dr. W. D. Jones, first district of the Ruthin Union.

AT the fifth annual general meeting of the Chislehurst, Sidcup, and Cray Valley Medical and Surgical Aid Society, on the 5th inst., it was reported that the provident dispensaries, the maternity fund, and the cottage hospital were in a satisfactory state. Increased subscriptions are urgently needed.

FIRE AT THE YORKSHIRE COLLEGE.—On the 14th inst. a fire broke out in the chemistry lecture-hall at the Yorkshire College at Leeds, and, despite the most energetic and prompt efforts of the fire brigades, continued for nearly four hours. The damage is estimated at nearly £3000.

THE LATE FIRE AT ALDGATE.—We are asked to state that the fire on the premises occupied by Messrs. Thomas Christy and Co., at 6, George-yard, Aldgate, on the night of the 12th, has not caused any interruption to their business, as all orders for drugs, &c., are being supplied from their warehouse at 2, George-yard.

A MEMBER of the German Reichstag is stated to have tabled a petition in favour of the introduction of optional cremation. The petition bears over 23,000 signatures, tendered in various towns and cities of the empire, among them being those of 1942 physicians, 1006 lawyers, 849 professors and teachers, 361 women, and 13 clergymen.

LONDON SANITARY PROTECTION ASSOCIATION.—At a meeting of the Council of this Association, held on the 11th inst. at their offices, 1, Adam-street, Adelphi, Mr. E. B. Ellis Clark, M.Inst.C.E., was appointed Consulting Engineer to the Association, in succession to the late Professor Fleeming Jenkin. The Association, which has been in existence now five years, consists of over 1000 members.

THE PARKES MUSEUM.—The tenth annual meeting of the members of the Parkes Museum was held in the Museum on Wednesday last, December 16th; Captain Douglas Galton in the chair. The annual report of the Council was of an encouraging character, the number of members having increased during the year from 260 to 365. The report concluded by stating that a scheme for amalgamating the Sanitary Institute with the Museum was under consideration, upon which the Council hoped to shortly report to the members. The financial statement of assets and liabilities (estimate) to the end of 1885, showed a balance of £191 16*s.* 3*d.* in hand after the purchase of the lease of the present premises. In addition to the report of the Council, a report was submitted by the joint-committee elected at the extraordinary meeting of members in February last. This Committee organised the great meeting at the Mansion House, which had resulted in contributions of upwards of £1000, and had enabled the Council to purchase the lease of the Margaret-street premises, thus reducing the annual expenditure for rent from £320 to £200. On the motion of the chairman, the two reports were unanimously adopted. Dr. Alfred Carpenter proposed a vote of thanks to the joint-committee; this was seconded by Dr. G. V. Poore, and carried. On the motion of Captain Galton, seconded by Professor Hayter Lewis, the retiring vice-presidents were re-elected; and on the motion of the chairman, seconded by Mr. Mark H. Judge, the following members of the Council were re-elected:—Dr. Poore, Professor Reynolds, Mr. Robins, and Mr. Thomas Twining. A vote of thanks to the chairman concluded the business.

YORK COUNTY HOSPITAL.—At the quarterly Court of Governors of the York County Hospital on Tuesday, some discussion took place on the principle governing the official appointments in connexion with that institution, and eventually notice was given by Alderman Thorp that he would move at the annual meeting that all appointments (except that of chaplain) should be open to duly qualified gentlemen irrespective of their religious profession.

HOSPITAL SATURDAY FUND.—At a meeting of the board of delegates of this fund held on the 12th inst., the report of the distribution committee, recommending that £9500 of the £11,200 already realised be distributed among 71 hospitals, 40 dispensaries, 19 convalescent homes, and other institutions, was adopted. A committee was appointed to consider if it is desirable to register the Hospital Saturday Fund under the Friendly Societies Act.

ASSESSMENT OF CHARITABLE INSTITUTIONS AT LIVERPOOL.—The rating of a number of the most important medical and other charities in Liverpool, including the Royal Infirmary, Lock Hospital, Northern Hospital, Dispensaries, Infirmary for Children, Eye and Ear Infirmary, Dental Hospital, School for the Blind, Consumption Hospital, &c., having recently been appealed against, the magistrates unanimously decided that the rateable value of these institutions was *nil*.

SANITARY ASSURANCE ASSOCIATION.—At the monthly meeting of the Council last Monday, arrangements were completed for the series of free lectures to be given by the Association at the Parkes Museum during January and February next. The first lecture is to be by Professor Roger Smith, on "A Damp House," on Wednesday evening, Jan. 20th, and on the next Wednesday, Mr. F. B. Jessett, F.R.C.S. Eng., will lecture on "Preventable Diseases."

A COLLECTION OF SKULLS.—The Natural History Museum at Vienna has just been presented with 708 skulls, collected through a series of years by Dr. Weissbach, who was for a long time director of the Austro-Hungarian hospital at Constantinople, and was a very distinguished anthropological investigator. Of the collection, 195 are pure Turkish skulls, 131 Greek, 96 Servian or Croat, 48 Hungarian, 43 Armenian, 29 Old Byzantine. There are also skulls of Maronites, Albanians, Koords, Asiatic Jews, &c.

THE OBLIGATION OF A MEDICAL MAN TO A PATIENT.—Mr. Justice Mathew, in refusing on the 14th inst. to grant a new trial of the actions brought by Miss Neave against Dr. Hatherley and Dr. Gardiner for signing a certificate for her removal to a lunatic asylum, a verdict against her having been returned at the former trial, said that a medical man was not bound to be infallible, and whether he was dealing with a patient suffering from physical or mental disease, his obligation was only to exercise proper care and skill in performing his duty.

OPEN ACADEMICAL PRIZES.—The Medico-Chirurgical Academy of Spain commenced its sessions for the year on November 30th, when a paper was read by Señor Ustariz on "The Necessary Reforms in Hospitals for the Practice of Antiseptic Surgery." The subjects for the academical prizes for the next year were announced—viz.: 1. Academy Prize: What Modifications has the Panspermist Doctrine introduced in the Treatment of Internal Diseases considered or suspected to be of Parasitic Origin? 2. Señor Morales' Prize: Progress in Operations on Bones; Criticism. The first prize is 250 pesetas (£10); the second, 750 pesetas (£30). The essays may be written in Spanish, Portuguese, French, Italian, English, or German, and are to be sent in to the President, directed "Montera, 22, Bajo Madrid," before September 15th 1886.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BARON, BARCLAY J., M.B., C.M., has been appointed Demonstrator of Practical Pathology in the Bristol Medical School.

CLARKSON, HERBERT G. HAROLD, L.R.C.P., L.R.C.S.Ed., has been appointed Medical Officer for the Eastern District of the Pateley Bridge Union, vice Saunders.

COTTON, CHARLES, M.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Ramsgate District of the Isle of Thanet Union, vice Curling.

FITZGERALD, EDWARD MAXWELL, L.R.C.P., L.R.C.S.Ed., has been appointed Government Medical Officer for Gayndah, Queensland.

GOSSE, HOPE WILKES, M.R.C.S., has been appointed Medical Officer for the Eccleshall District of the Stoke Union.

JOHNSTON, ARTHUR ALMA, M.K.Q.C.P.I., L.R.C.S.Ed., has been appointed Government Medical Officer for the District of Parkes, New South Wales.

KING, ERNEST EDWARD, M.R.C.S., L.S.A.Lond., has been appointed Assistant Medical Officer and Dispenser of Medicines to the District Sick Asylum, Cleveland-street.

LITTLEWOOD, HARRY, M.R.C.S., has been appointed a Senior Demonstrator of Anatomy at University College, London.

MACREADY, J. F. C. H., F.R.C.S., has been appointed Surgeon to the City of London Hospital for Diseases of the Chest, Victoria-park.

MUMBY, BONNER HARRIS, M.D., C.M.Aber., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health and Public Analyst for the Portsmouth Urban Sanitary District, vice Sykes.

NEWNHAM, W. H. C., M.A., M.B.Cantab., M.R.C.S., has been appointed House-Surgeon to the Bristol General Hospital.

NICHOLSON, H. GILBERT, M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Middlesex Hospital.

PATTERSON, GEORGE H., L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health to the Dalton-in-Furness District Local Board, vice Sidney Johnson, M.B., C.M.Aber.

SHAW, LAURISTON E., M.D.Lond., M.R.C.P., M.R.C.S., has been appointed an Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria-park.

SYMONS, MARK JOHNSTON, M.D., M.Ch.Ed., has been appointed Honorary Ophthalmic Surgeon to the Adelaide Hospital, South Australia.

WARE, GEORGE STEPHEN, M.R.C.S., L.S.A.Lond., has been appointed Resident Physician's-Assistant at the Middlesex Hospital.

Births, Marriages, and Deaths.

BIRTHS.

BOND.—On the 11th inst., at The Sanctuary, Westminster Abbey, the wife of Thomas Bond, F.R.C.S., of a son.

HARRISON.—On the 6th inst., at Charlwood-street, S.W., the wife of Thomas Harrison, A.M., M.D.Dub., of a daughter.

STARKIE.—On the 13th inst., at Sussex-street, Warwick-square, S.W., the wife of Richard F. Starkie, M.D., of a son.

WALLACE.—On the 12th inst., at Cardiff, the wife of Thos. Wallace, M.D., of a daughter.

MARRIAGES.

CARTER—GOODE.—On the 9th inst., at the Parish Church, Moseley, Alfred Henry Carter, M.D., of Temple-row, Birmingham, to Constance Mary, daughter of Albert C. Goode, of The Glebe, Moseley.

MACLACHLAN—WEARING.—On the 12th inst., at St. John's Church, Paddington, by the Rev. Sir Emilus Bayley, Andrew MacLachlan, M.D., C.M., of Fenwick, West Dulwich, S.E., to Jessie Blanche, eldest daughter of the late Mr. Justice Wearing, of the Supreme Court, Adelaide, South Australia.

MORRIS—WILMOT.—On the 8th inst., at Northam, North Devon, John James La Vetée Morris, Surgeon, Army Medical Staff, to Jane Pauline, younger daughter of the late Paul Wilmot, Esq., of Cliff House, Bideford.

DEATHS.

CASTLE.—On the 9th inst., at the Hôtel National, Lucerne, after a short illness, Michael Arthur Castle, M.D., late of Chapel-street, Park-lane, London.

DUFFY.—On the 8th inst., at Florence, Italy, Bernard Duffy, F.R.C.S.I., after a brief illness.

MCCLINTOCK.—On October 27th, at Richmond, New South Wales, Charles McClintock, M.D., F.R.C.S.E., fourth son of the late Robert McClintock, D.L., of Dunmore, co. Donegal, aged 36.

MILNE.—On the 13th inst., suddenly, at Brunswick-place, Brixton-hill, Charles Milne, M.R.C.S., aged 46.

REDMAN.—On the 8th inst., at 10, Steep-hill, Lincoln, Meredith Redman, M.R.C.S., L.S.A.Lond., in his 70th year.

ROUSE.—On the 7th inst., at Cleverdon, Bradworthy, North Devon, Eusebius B. Rouse, M.R.C.S., L.S.A.Lond., aged 79.

SNELL.—On the 12th inst., at Kenwood-avenue, Sheffield, Sarah Julia, the beloved wife of Hugh Henry Snell, M.R.C.S., L.S.A.Lond., aged 73.

YOUNG.—On the 26th ult., at Lot Fourteen, St. Vincent, West Indies, Laurence, the infant son of James Vance Young, M.D., and of Mary Louisa, his wife, aged 3½ months.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Dec. 17th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Dec. 11	30·52	N.W.	27	...	...	36	24	...	Foggy
,, 12	30·37	W.	33	...	...	43	25	...	Foggy
,, 13	30·34	S.W.	42	40	...	46	34	...	Overcast
,, 14	30·41	W.	45	44	...	49	42	·02	Foggy
,, 15	30·48	S.W.	47	45	...	53	45	...	Foggy
,, 16	30·50	W.	41	40	...	49	37	...	Hazy
,, 17	30·49	S.W.	49	47	...	52	40	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

STAMP DAMPER AND AFFIXER.

MR. A. B. CALDER, M.B., C.M.Edin., of Perth, has forwarded to us a specimen of a patented apparatus, the use of which is intended to render unnecessary the objectionable practice of employing the tongue in affixing postage-stamps. The instrument consists of a kind of trough terminating in a lip, beneath which is a slit, armed with a damper, serving as an outlet for moisture contained in a reservoir placed under the receptacle for the stamps to be used. A thumb-hole in the lid of the instrument enables the stamps to be propelled through the lip, and, passing over the damper, to be at once fixed on the envelope. The device is simple and ingenious.

Lord Truro.—The Isle of Thanet is probably the best place in England for persons prone to neuralgia.

STUDENTS AND THE COMBINED SCHEME.

To the Editor of THE LANCET.

SIR,—I think I am representing the feelings of all, or by far the greater majority of, students who are placed under the newly combined scheme, in drawing attention to the great disadvantage at which we are placed by a rule of the above which prevents a student from presenting himself for his second examination until six months after passing the first, which is composed of two parts—viz., examination in elementary anatomy and physiology, and examination in materia medica and chemistry, which formerly comprised the first Physicians. The first part is a great improvement and of great advantage to the student, as he knows all the plain facts of physiology and also his "bones" by the end of his first winter session. But why we should be compelled to pass in the second part before we may present ourselves for the primary examination we should like to know. We are supposed to give all our time in our second winter to anatomy and physiology for the above examination; but under the present existing state of affairs this is impossible, unless a man passes in the second part in July of his first year. Unless he does so, he cannot take it up until the end of October following, which, of course, necessitates him neglecting his proper studies for a month. Even by passing now he is only just able to present himself for the primary examination in the July following, whereas under the old rules most men had passed by this time. But should a student fail this time, there is no knowing when he may be eligible for his second; probably not until the beginning of his third year, or even later, as the time he should have spent in reading for this examination has been taken up in preparing for the first Physicians or second part of the first. We do not complain of the amalgamation of the two Colleges, but what we do complain of is that a student should have to pass the second part of the first before he may present himself for his primary.

I remain, Sir, yours truly,

Dec. 9th, 1885. ONE OF MANY.

HELEN PRIDEAUX MEMORIAL FUND.

IT is proposed to raise a sum in memory of Miss F. Helen Prideaux, M.B. & B.S. Lond., sufficient to endow a Prize or Scholarship bearing her name. Subscriptions may be sent to the Treasurer, the Dowager Lady Stanley of Alderley, 40, Dover-street, W., or to the Hon. Secretary, Mrs. Garrett Anderson, M.D., 4, Upper Berkeley-street, W. The following sums have been already received:—

Dowager Lady Stanley of Alderley	£25	0	0	Dr. Cheadle	£2	2	0
Mrs. Garrett Anderson, M.D.	25	0	0	Bowen May, Esq. ...	2	2	0
Louisa, Lady Goldsmid...	10	10	0	Miss R. Martin	2	2	0
Sir W. W. Gull, Bt., M.D.	10	10	0	G. R. Clarke, Esq. ...	2	2	0
The Earl of Derby ...	10	0	0	Dr. Matthews Duncan ...	2	2	0
G. Hanbury, Esq. ...	5	5	0	Madame Bodichon ...	2	2	0
Dr. Allen Sturge... ...	5	5	0	Mrs. Westlake	2	2	0
Mrs. Thorne	5	0	0	William Shaen, Esq. ...	2	2	0
Miss Alice G. Smith, B.A. Lond.	5	0	0	Dr. Ford Anderson ...	2	2	0
Mrs. Holland	5	0	0	Miss Holland	2	0	0
Mrs. Alexander Sim ...	5	0	0	Dr. Curnow	1	1	0
Mrs. Garrett	5	0	0	Dr. Elizabeth Blackwell	1	1	0
J. C.	5	0	0	Thomas Bond, Esq. ...	1	1	0
Mrs. N. Montefiore ...	3	3	0	Mrs. Atkins, M.D. ...	1	1	0
Professor Bentley ...	2	2	0	Mrs. G. S. Gibb	1	0	0
				H. Ede, Esq.	1	0	0
				Miss Barker, M.D. ...	1	0	0

Provident.—Executors of deceased persons always pay for the death certificates to prove their claim at a life insurance office.

"TRAINED NURSES."

To the Editor of THE LANCET.

SIR,—I have no doubt that others beside myself have been surprised at the tone of your remarks on "Trained Nurses" in THE LANCET of Nov. 28th; but as I see no reply in your subsequent issues, I send a few lines in defence of a class of women of whose services I am frequently glad to avail myself, and who appear to me to have been unjustly treated in the annotation (p. 1016) to which I refer. You there say, "What nurses are trained to do could be as well done by ordinary servants if the practitioner would and could give precise instructions as to details." I quite agree with you that the doctor should be able to give these instructions—that he should be, indeed, himself the head nurse, and that something beyond hospital practice is necessary for his full qualification in this respect; but, surely, it is practically impossible for the practitioner to efficiently instruct a novice in all the nursing details required in every case of serious illness; and, if it were practicable for him to do so, would he not then be doing his best to make a "trained nurse" of the "ordinary servant"? Nor could he quickly succeed. The making of poultices, giving enemata, taking the temperature, and a dozen other details, take time to teach; and still more is prolonged training, with more than any single case of sickness, necessary to enable a nurse to move and handle a patient skilfully, and to observe changes and symptoms, which it is an important part of her duty to report to the doctor. That thorough training is more apt to puff up than very inefficient training I cannot think, whether in nursing or in any other department of practical knowledge, but that a little knowledge of any such subject is more dangerous than more complete knowledge I thoroughly believe. High moral character and systematic training form together the proper basis for good nursing. Happy they whose wives or sisters have been so taught as to be well fitted to nurse them in sickness; but happy also they who are able to obtain the help of well-trained and conscientious nurses, whether lady-nurses or not, in the season when life may depend on efficient nursing, and when untrained relatives feel painfully their own inefficiency.

I am, Sir, yours truly,

Sheffield, Dec. 14th, 1885. R. J. PYE-SMITH.

*** Dr. Pye-Smith's views on the subject of trained nurses are doubtless sound from his standpoint; but we must be excused for thinking that, if he will only reconsider each and all of the advantages on which he insists, it will be clear to himself that only a *very little* trouble is necessary to *direct* any competent person. The knowledge a trained nurse possesses—the very utmost she can acquire—must be simply so much quackery, in so far as it extends beyond the mere womanly qualification of ministering gently to the sick and obediently carrying into effect a careful practitioner's instructions. Unhappily, female nurses are actually allowed to pass catheters and give hypodermic injections.—ED. L.

SANITARY SCIENCE CERTIFICATES AND PUBLIC HEALTH APPOINTMENTS.

To the Editor of THE LANCET.

SIR,—The letter of "M.D. Sanit. Science Certif. Camb.," in your issue of Dec. 5th, is well worthy of the consideration of those who, like myself, have, at considerable time and expense, qualified in sanitary science. I propose that those who hold certificates or degrees in State medicine combine to form an association to further their vested interests. I should be most happy to aid such a movement, and would be pleased to communicate with your correspondent if I could be of any service in such a cause. I am, Sir, yours faithfully,

St. George's Union Infirmary, Fulham-road, S.W., Dec. 12th, 1885. H. A. FOTHERBY.

PRACTICE IN A CALIFORNIAN HEALTH-RESORT.

WE are frequently receiving letters requesting information about the openings for practice which exist in America and other places, some of our correspondents being in particular anxious to hear of some locality suitable for a practitioner who has himself incipient phthisis. The following extracts from a letter to an Ohio medical journal from Los Angelos, California, may possibly be of interest to such:—

"Every in-coming train, especially the one from the East, brings to this city and neighbouring towns a large number of invalids, many of them suffering from some form of pulmonary disease. Southern California possesses a mild, dry, and uniform climate. ..... Los Angelos has assumed a national reputation as a health-resort. ..... Physicians, of which there are about one hundred in number, are in excess to the population of the city. Many come here to build up their broken-down health, or accompany their families on account of sickness of one or more of them. While here, they do the best they can. If regular practitioners, there is no obstacle in their way which would prevent them from practising medicine, only having to comply with the law and procure a licence from the State Board of Examiners, submit credentials, and pay a fee of five dollars. This certificate is afterwards recorded by the County Clerk, who also is paid for his service. Notwithstanding this law, it affords very little protection to the honest physician. There are said to be about 500 illegal practitioners registered. Quacks take the leading business, as their column advertisements in the various leading newspapers and periodicals of private nature bring to them their ill-gotten gains. The number of certificates issued by the Board of the Medical Society of the State of California to date is 2209, which includes 217 to homœopathic and 294 to eclectic physicians. ..... Physicians, say, of ten years' practice—and there are very few who remain here that length of time—are considered the old practitioners. Even these older practitioners never control a large practice. ..... People live in well-built frame houses, situated on the sloping hills near the town, and surrounded by the most beautiful gardens and lawns. Thrifty hedges of cypress and evergreen are seen everywhere, and the rose, hyacinth, heliotrope, &c., can nowhere be seen better than in these little gardens. The pepper, eucalyptus, orange, and lemon trees furnish the required shade. To occupy a room in one of these houses is like living in the Garden of Eden. For the patient, certainly, these surroundings are best suited to at least stay the course of the disease."

Puzzled.—The question is one for an accountant rather than for us, and the answer must depend on many considerations, such as the original terms of partnership, the present value of the practice, and the degree in which B has contributed to its value and is capable of transferring his interest to others.

"PERSISTENT CONSTIPATION."

To the Editor of THE LANCET.

SIR,—In your issue of Nov. 28th "Physician" asks for some hints on the treatment of the above troublesome complaint. I have met with it frequently, at all ages and in both sexes, and have had recourse to the most approved remedies, with varying results. For some time past I have been using a preparation of the bark of Rhamnus purshianus, or cascara sagrada, with tolerable success. However, since the issue of the new British Pharmacopœia I have pretty largely prescribed the extracti cascaræ sagradæ liquor, from 3ss. to 3iss. doses, in water according to age and constitution, with most gratifying results. It suits well, inasmuch as it acts as a gentle aperient, causes no pain, and is not usually followed by constipation, as generally happens after the administration of castor oil; but it should be continued at least daily for the first few days, until the physiological effects are produced on the intestinal canal, after which an occasional dose only will be required. It is very suitable for delicate people who cannot take exercise in the open air, being a safe and painless laxative.

Trusting your correspondent may adopt this line of treatment and report success, I am, Sir, yours faithfully,

Portobello, N.B., December, 1885. ANDW. M. T. RATTRAY.

To the Editor of THE LANCET.

SIR,—In answer to "Physician," I may say that I have rarely found the following formula to fail, providing there is no mechanical cause for it:—℞ Ext. nucis vom., gr. ½; ferri sulph. exsic., gr. 1; ext. aloes Barb., gr. 1: ft. pil. One pill should be given every night for a week, then one every other night for the same period. It is often well to provide the patient with a few pills, so that one may be taken (say) once a week for one or two months. I am, Sir, yours obediently,

December 14th, 1885. A PHYSICIAN.

THE APOTHECARIES' HALL IN IRELAND AND SURGERY.

WE were in error in saying that the Apothecaries of Ireland do not examine in surgery, and we are obliged to Mr. Joseph Abbott for correcting us. Our correspondent thinks that the Apothecaries' examination is the most practical in the medical profession, and that all M.D.'s and M.R.C.S.'s should be obliged to pass it.

Dr. John W. Taylor (Birmingham).—The paper has been received.

Mr. Sidney Thorp.—Such cases are very rare.

A CHRISTMAS PRESENT FOR BOYS.

WE have received from Mr. John Heywood, of Deansgate, Manchester, a specimen of an educational toy designed by Mr. Francis Vacher, of Birkenhead, consisting of a box of model bricks, accompanied by pictorial illustrations of the figures which may be built up with them. At this season of the year it may be useful to call attention to a means of juvenile amusement and instruction such as the above affords.

Rev. S. B. James is referred to an annotation on the subject in another column.

Austral.—Our correspondent is entitled to complain severely, and perhaps has legal claims against the principal, if he can really show that he has lost a situation by the principal's failure to keep his promise of a testimonial. He should consult a lawyer.

CASE OF PARTIAL PLACENTA PRÆVIA.

To the Editor of THE LANCET.

SIR,—Cases of placenta prævia, either partial or complete, are met with now and again, the danger attending such being so great, and the recoveries so comparatively few, that I think it would be well if the treatment adopted and the result were in all cases made known. The following is a note of a case which came under my notice.

Some time since, while in charge of a town practice, I was summoned about 3 o'clock one morning to see Mrs. L——, who, I was informed, was dying of flooding. I learned that ten days previous to my being sent for she had an attack of hæmorrhage, which lasted about an hour. Next day there was a recurrence of it, and from that time up till my arrival she had had several attacks more or less profuse. A midwife was in attendance; but, through some unaccountable remissness on her part, she did not send for medical aid until the patient's condition had become quite alarming. On my arrival the patient presented the following symptoms: countenance anxious, extremely pale, and bedewed with a clammy sweat; furred tongue, nausea and vomiting, quick thready pulse, and profuse hæmorrhage. On vaginal examination the os was found to be dilated to about the size of a half-crown piece. On one side I could feel the placenta, which I recognised by its boggy and resistent texture; while at another I felt the bag of waters and presenting part (head) of the child. No fœtal heart-sounds could be heard. I ruptured the membranes, which had little or no effect in checking the hæmorrhage, and the woman becoming still weaker there was little time to be lost in resorting to delivery. The pains were rather strong and frequent, and as the os was dilatable I proceeded to dilatation (digital), and by means of the long forceps delivered her of a stillborn male child, having previously administered a hypodermic injection of ether. I now gave a dose of the solution of extract of ergot with some brandy, and used friction over the uterus, which soon contracted. There was only a slight gush of hæmorrhage, and the placenta was expelled in less than twenty minutes. The patient being in a very weak state for four or five days after delivery, I kept her on brandy mixture (P.B.) and beef-tea. Antiseptic injections were used daily. She made an excellent recovery, and was able to sit up on the twelfth day. She was in the ninth month of pregnancy, and had had eleven children, the last having been born two years previously, and, so far as I could learn, all her labours were natural. Her age was thirty-nine. I was informed that one of her sisters died of hæmorrhage during labour; but I could not find out what was the nature of it—possibly "unavoidable."

I am, Sir, yours obediently,
J. J. O'BRYEN, L.R.C.P., &c.,
Surgeon, Ocean Steamship Company.

Bonchurch-road, W., Nov. 18th, 1885.

ACTINOMYCOSIS.

IT is asserted that a prize of 20,000 florins has been offered to any doctor who shall succeed in discovering a certain cure for actinomycosis. The money is said to have been deposited at a Vienna bank. Twenty millions would not be too much. And if actinomycosis, why not tubercle?

Mr. Martin R. Hart is referred to our advertising columns.

MEDICAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—Your opinion on the following point would be valued by me.

A lady who has been a patient of mine in the country for years has lately been attended in her confinement by an obstetrician in London. This lady has now returned home, but with instructions from her London attendant to call in a medical man other than myself to treat a slight ailment for which I have on several occasions treated the lady. I may add that throughout my professional connexion with my patient everything has been of the most pleasant character. I shall be glad to know if such action on the part of this London accoucheur can be recognised as either courteous or professional.

I am, Sir, your obedient servant,

Dec. 14th, 1885. M.D.

*** The action of the London accoucheur, as described, is neither courteous nor professional. We cannot understand it. We should advise our correspondent to ascertain from the practitioner in London exactly what he did advise, and his grounds for doing so.—ED. L.

BENZOLINE SAFETY LAMPS.

CALAMITIES resulting from the upsetting of benzoline lamps have been sufficiently numerous to make it worth while to call attention to a lamp patented by Mr. Hardy, jun., of Thistleton, Oakham, which, being of globular form and weighted at the bottom, cannot be upset. It is also provided with a sliding tube, by which the flame is readily extinguished.

M.D.—Our correspondent's retort does not apply in any way to such a candidate as Mr. Erichsen.

THE NAPLES WATERWORKS.

To the Editor of THE LANCET.

SIR,—The *American Register* devotes much space to a review of your editorial on the Naples Waterworks, and among other remarks says: "I am glad to see that the various journals, and notably among them that great authority, THE LANCET of London, appreciate the importance of the waterworks of Naples. THE LANCET will be glad to know that most careful and critical analyses of the water from this abundant supply from the Apennines show that it is far purer than the best water of Rome, and is equal to the water of Berlin, which enjoys the highest reputation in Europe." The *American Register* again remarks: "The writer in THE LANCET is no 'dead' head, in American parlance, and pronounces the hotel accommodation of Naples as exceedingly good, instancing the Hôtel Bristol and the Grand Hôtel as the equals of any in Europe." Had the writer of the article in THE LANCET known the Grand Hôtel Nobile, the Hôtel Tramontano, and the Pension Britannique, he would, I am sure, have given prominence to these hotels, not only for their high and healthy positions, but also for the advantages they offer. The remarks in THE LANCET cannot fail to stimulate to further improvements; while adversity, too, has had its effect. Since the visitation of cholera the scavengers are more active. The fresh and pure water is placed within reach of the poor at the several fountains, without cost, and vast structural alterations in the city have begun.

I am, Sir, yours obediently,
Naples, Dec. 12th, 1885. M.D.

A CORRECTION.

IN our report of the last meeting of the Royal Medical and Chirurgical Society, Mr. James Hardie's name was through an oversight reported as Mr. McHardy.

Subscriber.—English qualifications will be recognised in all the countries named; but we cannot name the local organs which constitute the best media for application and advertisement.

SKATING MANIA.

To the Editor of THE LANCET.

SIR,—Being rather interested in your account of "election fever," I send you the following history of "skating mania," which occurred during the past week in a friend of mine.

B. W——, aged twenty-three, became very eager for skating as soon as the frost commenced, and went in for this pastime with all his might, skating from the first thing in the morning till about ten o'clock at night. After two or three days of this, he became very restless, and could not sleep at night, as he imagined that he was always on the "outside edge," "cutting figures," &c. This increased, and he became much more restless and depressed in spirits. He was obliged to give up skating, and although nearly a week has elapsed since he last skated, he has by no means recovered. I might add that he was in good health prior to this.

Trusting this will be deemed of sufficient interest to be inserted in your valuable journal, I remain, Sir, yours obediently,
Newcastle-on-Tyne, Dec. 14th, 1885. FIRST M.B.

UNDER-PAYMENT IN MEDICAL CLUBS.

A Club Association Doctor.—There is nothing in existing law to make our correspondent's suggestions practicable; and there is no chance of getting a new law to enforce such propositions.

ITCHING OF JAUNDICE.

To the Editor of THE LANCET.

SIR,—Can any of your readers suggest a mode of treatment for the above troublesome symptom? My patient is better of jaundice. The urine, fæces, and skin have become perfectly normal, but still the itching remains. I have tried calamine and tincture of opium in lotion. This relieves it for an hour or so.

I am, Sir, yours truly,
Dec. 15th, 1885. L.R.C.P.

WRITER'S CRAMP.

Omega.—Our correspondent, being a sufferer, doubtless thinks he knows more about the affection than do those who are not so afflicted. But we assure him it is not a purely muscular malady. Local remedies, including galvanism, are frequently employed to influence nerves and nervous centres.

ERRATUM.—In our annotation last week on "Pharmacists and the British Pharmacopœia" the amount of morphine which the official extract of opium should contain was by a misprint put as 2 per cent. It should, of course, have been 20 per cent.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Henry Thompson, London; Prof. Wharton Jones, Ventnor; Sir Edwin Saunders, London; Dr. Buzzard; Mr. F. Treves, London; Dr. W. A. Duncan, London; Mr. Bennett May, Birmingham; Mr. Prowse, Clifton; Dr. Churton, Leeds; Mrs. Garrett Anderson, London; Mr. C. M. Kempe, New Shoreham; Dr. C. R. Drysdale, London; Mr. Dumbrill-Davies, Chelford; Mr. Jas. Abbott, Exeter; Dr. James Wilson, Liverpool; Messrs. J. Hinks and Son, London; Mr. Clements, Tunbridge Wells; Dr. C. L. Robertson, London; Mr. F. W. Cory, Bournemouth; Mr. C. Drake, Plymouth; Messrs. Williams and Norgate, London; Messrs. Loeflund; Mr. Heald, Leeds; Mr. G. H. Browne, Brynmawr; Prof. Attfield, London; Rev. Dr. James, Northmarston; Dr. Cullimore, London; Mr. Mallik, Hooghly; Dr. C. F. Hutchinson, Leeds; Dr. Fotherby, London; Mr. Batterhan, Wolverhampton; Dr. T. F. Chavasse, Birmingham; Mr. J. V. Fitzpatrick, New Swindon; Dr. Waugh, London; Mr. Spencer, York; Mr. Pye-Smith, Sheffield; Mr. Wooldridge, London; Mr. Simeon Snell, Sheffield; Dr. Hingston Fox, London; Mr. R. G. Carter, Bradford; Mr. A. Green, Dudley; Mr. F. Vacher, Birkenhead; Dr. J. A. Andrews, New York; Mr. Rideal, London; Surgeon-Major W. Gray, London; Mr. R. Williams, Liverpool; Mr. Pridgin Teale, Leeds; Mr. Jas. Hardie, Manchester; Mr. Green; Dr. Dobie, Chester; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. Taylor, Brixton; Messrs. Zimmerman and Co., London; Mr. Radley, Newton Abbot; Messrs. Sacker and Co., London; Dr. Fergus, Marlborough; Dr. Welch, Blackpool; Dr. Jay, Leamington; Dr. Tomkins, Leicester; Mr. John Taylor; Mr. Morton, London; Dr. Roberts, Festiniog; Mr. Taylor, Buxton; Mr. White, Wolverhampton; Mr. Smiles, Haverstock-hill; Mr. Parkinson, Manchester; Dr. Squire, London; Dr. Harrison, Liverpool; Mr. Taylor, Sunderland; Messrs. Burgoyne and Co., London; Dr. Adam, West Malling; Mr. Preston, London; Mr. Peet, London; Dr. Tibbits, London; Mr. Briscoe, Bolton; C. E.; L.R.C.P., Upper Edmonton; L. C.; M.D.; Omega; M.D., Naples; The Warden of Queen's College, Birmingham; St. Mary le Bone; Austral; First M.B.; Provident; Salus; S. C., Victoria-park.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Snell; Mr. Fraser, Burnham; Mr. McKinlay, Stockton-on-Tees; Dr. Merry, Manchester, U.S.A.; Mr. Jotcham, Wantage; Mr. Robeson, Tewkesbury; Mr. Henmerus; Mr. Woodroth, Clifton; Mr. Blenkarne, Bucks; Mr. Pillay, Kallakurchi; Mr. Redman, Lincoln; Mr. Hart, Westminster; Mr. M. Walker, London; Messrs. Lee and Martin, Birmingham; Messrs. Robinson and Co., Sunderland; Dr. Monckton, Maidstone; Mr. Abbs; Mr. Hannah, Ashton; Messrs. Rock and Hawkins, Hastings; Col. Chapman, Wimbledon; Mr. A. St. Dalmas, Leicester; Messrs. Douglas and Co., Worthing; Mr. Wood, Liverpool; Dr. Dowding, Bournemouth; Mr. Kenny, Reading; Mr. Craven, Manchester; Mr. Harnett, Horsham; Mr. Rouse, Bideford; Mr. Clark, Southampton; Miss Price, West Brighton; Mr. Pearson, Cork; Mr. Richards, Cardigan; Medicus, Brighton; F. G., Littlehampton; Medicus, Minchinhampton; Velox; M.D., Haslington; J. C., Kensington; Matron, Peterboro'; M.B. Cantab.; Surgeon, Wigan; M.D., London.

Scotsman, Somerset County Herald, Clapham Observer, East Suffolk Gazette, Western Morning News, Bolton Daily Chronicle, Folkestone Observer, The Jasper, British Journal of Photography, &c., have been received.

Medical Diary for the ensuing Week.

Monday, December 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M. Also on Thursdays at 2 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. B. W. Richardson, F.R.S.: A case of Aneurysm of the Innominate Artery.—Dr. W. B. Hadden: Chronic Poisoning by Bisulphide of Carbon.

Tuesday, December 22.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Wednesday, December 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown. Adjourned discussion on Dr. R. T. Smith's paper on Hystero-trachelorrhaphy.

Thursday, December 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, December 25.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, December 26.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
MIDDLESEX HOSPITAL.—Operations 2 P.M.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.